

Sources of Hazardous Substances in the PASSAIC RIVER STUDY AREA

POTENTIALLY RESPONSIBLE PARTY:

Chris-Craft Industries, Inc.

PREPARED BY:
MAXUS ENERGY CORPORATION
ON BEHALF OF THE
OCCIDENTAL CHEMICAL CORPORATION

INDEX OF DOCUMENTS IN SUPPORT OF COMMENTS CONCERNING CHRIS-CRAFT INDUSTRIES, INC.

TAB 1: Affidavit of Seymour Lubetkin

In his affidavit, Mr. Lubetkin, the Chief Engineer of the Passaic Valley Sewerage Commission for more than 25 years, describes the operations and mechanics of the PVSC sewage collection system. This affidavit describes how all the collection systems in the PVSC system, whether or not they were combined collection systems, were periodically diverted untreated to the Passaic River.

TAB 2: Earthline PVSC Permit and Correspondence Regarding Permit

The PVSC permit to Earthline Company, which occupied 100 Lister Avenue in 1977, specifically directed Earthline, as a permit condition, to eliminate the "known illegal cross connection between the storm and sanitary sewer on Lister Avenue." In addition, a letter from the City of Newark Department of Engineering to the New Jersey Department of Environmental Protection in 1977 regarding Earthline's permit, discusses questionable connections to the sanitary sewer lines on Lister Avenue.

TAB 3: June 9, 1983 Letter from Sol Koved to the New Jersey State Department of Health

In this letter, dated ten years before Mr. Koved became a consultant for Maxus, Mr. Koved states that Montrose Chemical Company produced a wide range of herbicides and pesticides at its facility on Lister Avenue, including, among other things, 2,4-D and 2,4,5-T.

AFFIDAVIT OF SEYMOUR A. LUBETKIN

COUNTY OF Palm Breeks

Sevmour A. Lubetkin, having been duly sworn, affirms:

- 1. [, Seymour A. Lubetkin, was the Chief Engineer of the Passaic Valley Sewerage Commissioners ("PVSC") between 1954 and 1978. I have personal knowledge of the matters discussed in this Affidavit.
- 2. Education and Employment: I hold a Master of Civil Engineering (1957) and a Master of Science in Electrical Engineering (1950). I received a Bachelor of Science in Mechanical Engineering in 1947. I am a member of Tau Beta Pi, the national honorary engineering society, and a Diplomate to the American Academy of Environmental Engineers. I received the Dr. H. Heukelekian Industrial Waste Award from the New Jersey State and Federal Water Pollution Control Association in 1973, and the William D. Hatfield Award for Outstanding Performance in the Operation, Management and Advancement of Knowledge in the field of Water Pollution Control in 1983. I am listed in Who's Who in Engineering. I have served as an arbitrator for the New York Stock Exchange.
- 3. In 1950, I was employed as Assistant Chief Engineer of the PVSC. In 1954, I was promoted to the position of Chief Engineer, which I held until 1978. As Chief Engineer, I directed all operations of the PVSC, the largest sewerage authority in New Jersey. I was responsible for the annual operating budget of the PVSC, of almost \$9 Million, as well as the PVSC's purchasing, investments, and accounting procedures. I directed the activities of the PVSC's more than 200 employees, including the Operating, Engineering, Inspection and Maintenance Personnel (which included the Bypass Crews). I established pollution control programs involving industrial permits, sewer use ordinances, river and industrial monitoring and pretreatment systems. I wrote the PVSC annual reports and testified as an expert on pollution and the solutions to the problems it causes.

- 4. [am currently a consulting engineer. [am the author of several articles, in addition to the Annual Reports to the Passaic Valley Sewerage Commissioners for the Years 1971, 1972, 1973, 1974, 1975 and 1976 ("Annual Reports").
- 5. Bypassing: Some of the municipalities discharging into the PVSC system had combined sewers. Because the capacity of the PVSC's treatment plant and trunk line was not sufficient to handle all the waste together with rain water generated in times of peak flow, between 1950 and 1978 the PVSC periodically discharged untreated sewage, including industrial waste streams, directly to the Passaic River. Therefore, the untreated waste of every municipality, including industries, connected to a municipal sewer line served by the PVSC between 1950 and 1978 was diverted to the Passaic River on a periodic basis. The practice of diverting sewage directly to the River was called "bypassing."
- 6. Because the capacity of the trunk line did not change materially, I believe that PVSC continued to bypass untreated waste to the Passaic River after 1978.
- PVSC's Trunk Line: Before 1902 when the PVSC became a legal entity, most municipality within the PVSC's jurisdiction developed a sewer system which discharged directly to the Passaic River through a discharge line ending in an outfall on or near the River's banks. Between 1912 and 1924, the PVSC constructed a trunk line which runs approximately along the River and intersected the discharge lines of the municipal lines close to the municipal outfalls along the River. In 1924 the PVSC went into operation and collected the waste, formerly being discharged to the Passaic River, into its trunk line. This trunk line carried the waste from the municipal lines directly to the PVSC's treatment plant at Newark Bay near the mouth of the Passaic River.
- 8. Some of the sewer lines connected to the PVSC's trunk line were combined sewer systems. In these combined sewer systems, stormwater runoff flowed directly into the municipal sewer lines along with wastewater. When it rained, the volume transported by these combined sewer systems into the PVSC's trunk line would increase dramatically. These increases in the

volume handled by the trunk line often exceeded the capacity of the treatment system and the trunk line to handle the waste material. Unless the waste was bypassed to the River, the sewage in the trunk line would back up into the municipal lines and overflow into points connected to the system, including homes.

- 9. Outfalls: Attached to this Affidavit as Exhibit A is a copy of the first National Pollutant Discharge Elimination System ("NPDES") permit issued to the PVSC. The permit, No. NJ0021016 issued effective February 28, 1975, lists the outfalls from the municipal systems handled by the PVSC. Page 13 of the permit lists the discharge points to the Passaic River owned by the PVSC. Outfalls there numbered 001 and 002 were to handle only treated effluent from the PVSC's treatment plant. The remaining outfalls listed there, numbered 003 to 007, inclusive, carried untreated sewage upstream of the PVSC's treatment plant. The PVSC used these outfalls to bypass sewage and rainwater to the River.
- 10. The permit, at pages 14 through 19, lists an additional 67 outfalls that carried untreated sewage. The PVSC used these outfalls to bypass sewage and rainwater to the Passaic River or its immediate tributaries.
- 11. The outfall listed in the 1975 NPDES Permit on page 13 and there numbered 003 was also known as the Yantacaw Street Bypass. This bypass carried all the effluent handled by the PVSC upstream of the junction of the Third River and the Passaic River. This outfall was the largest bypass in the system.
- 12. The outfall listed in the 1975 NPDES Permit on page 19 and there numbered 074 was also known as the Second River Joint Meeting Sewer. The Second River Joint Meeting Sewer was a mini-trunk line, built by the Second River municipalities, Montclair, Glenridge, Bloomfield and part of Nutley. It connected all of their sewage systems to the PVSC's trunk line. When this Second River Joint Meeting Sewer was bypassed to the River, all of the waste handled by these municipal systems went directly into the River.

- sewer outfall line. The municipal outfall line was connected to the PVSC's trunk line through a chamber constructed so that gravity would carry waste headed down the municipal line into the trunk line and to the PVSC's treatment plant instead of to the River. However, the remainder of the old municipal line was usually kept as a bypass, if needed. In many places float operated valves were constructed to automatically operate the bypasses during high sewer levels.
- 14. When I was first employed by the PVSC, most of these connections had inoperable automatic bypass valves. These automatic bypass valves were supposed to have been controlled by the float. As the trunk line became full, the float was supposed to rise in the chamber and, in theory, close a valve on the connection between the municipal sewer and the trunk line. Once this valve was closed, the waste would flow directly along the old outfall directly into the Passaic River. However dirt, rags and sand continually got under the floats keeping them from opening the valves when the sewage level dropped causing by-passing during periods when it was not necessary. Constant maintenance was not sufficient to rectify the problem.
- 15. Because these automatic bypasses did not operate properly, the floats were disconnected and the flap valve which they formerly controlled was then operated manually with a chain. Thus no bypassing would occur unless it was done manually, or unless the sewage level became so high that it overflowed an adjustable level weir.
- 16. On the east side of the River, many of the bypass valves were simple weirs. In these weirs, the sewage would fall into the trunk line until the capacity of the trunk line was so full that it backed up to the top of the weir, and then it would overflow the weir directly into the River.
- 17. The largest bypass, the Yantacaw Bypass had two sets of gates operated by hoists -- one set in the trunk line and one set on the outfall to the Passaic River. Normally, the gate to the trunk line was open and the gate to the Passaic River outfall was closed. To bypass

the trunk line, the Bypass Crew opened the gate to the River and closed the gate to the trunk line. This bypassed all of the sewage in the trunk line upstream of Third River. The second largest line bypass, the Second River Joint Meeting Sewer, similarly had two sets of gates that were operated with hoists. This one bypassed all the sewage in the Joint Meeting Sewer.

- 18. Incidents Requiring Bypasses: The PVSC bypassed waste to the River in the following instances:
 - a. when it rained and the volume of flow in the system threatened to exceed capacity;
 - b. when it was necessary to reduce the flow in order to repair sewer lines;
 - c. when discharges occurred accidentally, as when the flap valve closed because the chain had broken or come unattached; and
 - d. when a breakdown occurred at the pumping station or treatment plant and it was necessary to limit flow for repairs or to prevent further damage during repairs.
- 19. Rain: Where the rain increased the volume of flow in the trunk line, the PVSC would bypass waste directly to the River in varying quantities in order to control the flow of waste in the trunk line and at the treatment plant. As Chief Engineer, I was in charge of directing the Bypass Crew operations. The Bypass Crew was on call 24 hours a day.
- Only the amount of waste necessary to protect the system was bypassed. The smaller bypasses in the City of Newark were usually employed first. The Second River Meeting Sewer was the "next-to-the-last resort." This line was easy to bypass because the gates were in the line maintenance yard at Second River owned by the PVSC so they were readily accessible to PVSC personnel. Finally, the "last resort" was the Yantacaw Bypass. Bypassing this system as referred to as "having to throw Yantacaw," as in "the rain was so bad we had to throw Yantacaw."

- As I discuss in greater detail below, the PVSC kept accurate records of the amount of waste bypassed to the River. I have not reviewed those records in preparing this Affidavit. I have, however, reviewed the charts showing rainfall, River flow and input to the PVSC treatment plant contained in the Annual Reports for the Years 1972, 1973, 1974, 1975 and 1976. I have attached these charts to this Affidavit as Exhibit B-1 through B-10. These charts illustrate that on several occasions each year, the River flow rose significantly, but the volume received at the treatment plant fell below the average daily flow for the year. I believe that in these instances the Yantacaw Street Bypass was thrown, and the waste it carried was bypassed to the River.
- Repairs: The PVSC also bypassed sewage into the Passaic River to repair the sewage lines. For example, as reported at page 55 of the Annual Report for the Year 1971, floods in August of 1971 broke the Second River Joint Meeting Sewer. A 400-foot section of the Second River Joint Meeting Sewer had to be replaced because of this break. However, because of the break, approximately 40 million gallons of waste was discharged to the river from the Second River Joint Meeting Sewer per day between August 28 to September 3, 1971. A large amount of sewage was also bypassed to the Passaic River during the repair of a major crack in the trunk line under McCarter Highway during the month of March 1974. Details of this repair and its problems are presented on page 21 of the 1974 Annual Report.
- 23. Records: The PVSC maintained accurate records of the number of bypasses and the estimated volume of bypassed material. The PVSC used these records to calculate the fees to be charged to the municipalities using the PVSC's system.
- 24. Each municipality using the PVSC's facilities paid a percentage of the operating expenses of the PVSC. The percentage was based on the ratio between the volume of the municipality's waste and the total waste handled by the PVSC.
- 25. The volume of waste contributed by each municipality was measured by flow meters. Some by direct measurement as the waste went into the PVSC line and some, such as

Newark, indirectly by subtraction of meters in and along the trunk line. The billable flow for each municipality was calculated weekly using readings from these flow meters along the trunk line. Subtracting the volume of an upstream meter from a downstream meter gave the volume received by the trunk line between those meters. Each municipality paid for its percentage contribution of the total sewage contributed to the PVSC system.

- 26. If the flow was bypassed to the River because of high volume in the trunk line between two meters, the flow metered in the bypassed area would be reduced. This reduced flow would result in a lower billing ratio for the municipality in the by passed area. This lower billing ratio would confer an unjustified economic benefit on the affected municipality.
- 27. To correct for this unjustified benefit, a formula was developed that computed a weighted average flow for use during periods when bypasses artificially reduced actual flow. Under this formula, the PVSC calculated an average flow for each municipality based on flow rates during periods when no waste was bypassed. This average flow rate was used to calculate the amount of sewage bypassed in some areas. In other areas the flow charts were modified to add back the estimated amount bypassed. These calculated and estimated flows were added to the municipality whose flow was affected by the bypassing. Using these flows a percentage was calculated for billing purposes and used instead of the unfair results if this was not done.
- 28. The PVSC kept records of when waste was bypassed so that it could determine when the flow in any municipality had been artificially reduced. These records showed the bypass used, and the amount of time the bypass was open.
- 29. What Waste Was Bypassed: I have not reviewed PVSC's records of the volumes of waste bypassed in preparing this Affidavit. Except as I have expressly stated, I have not estimated the volume of waste bypassed. However, the practice of bypassing was so necessary and frequent that I conclude that the wastestream of every entity connected to a municipal sewer system serviced by the PVSC was bypassed untreated to the Passaic River at some time or another.

- 30. The various waste sources commingled in the various municipal sewers and these combined wastes commingled in the trunk line. If a main bypass, such as Yantacaw or Second River was opened, all the waste upstream from that point went into the River. Thus when Yantacaw was opened, the waste from Paterson, Passaic, Clifton, Garfield and many other municipalities upstream of Third River, went into the River. When Second River was bypassed the sewage from Monclair, Orange, Glen Ridge, Bloomfield, and East Orange went to the River. Other bypasses discharged waste from various sections of municipalities. Therefore, opening a bypass in Newark bypassed waste from all tributary industries located in that section.
- 31. Except as expressly noted here, I have not had an opportunity to review records to identify the entities, especially industry, connected to the municipal sewer systems serviced by the PVSC whose waste was bypassed untreated to the Passaic River.
- 32. The Annual Reports for the years 1971, 1972, 1973, 1974, 1975 and 1976 contain discussion of discharges to the Passaic River that were found to be polluting. These discharges are identified in the Reports by the name and address of the generator. These are in addition to the bypass discharges discussed in this affidavit. For example, the Annual Report for the Year 1971 at page 118 mentions a green florescent dye discharged into the storm sewer from Thomasset Colors at 120 Lister Avenue in Newark. Most of the parties identified in these Annual Reports, like Thomasset Colors, were also connected municipal sewer systems serviced by the PVSC but may have had direct lines to the River or to a storm sewer. Although these lines were only to be used for clean water discharges, waste discharges did occur.
- 33. In addition, in 1972, the PVSC conducted an Industrial Waste Survey of industries within its service area. I have attached to this Affidavit as Exhibit C a copy of the letter and questionnaire that was sent to approximately 3000 industries by the PVSC in 1972. By the time I wrote the Annual Report to the Commissioners for 1972, 277 industries had completed and returned these questionnaires. The PVSC subsequently sent and received more completed questionnaires. These completed questionnaires identify industries whose waste was

discharged into municipal systems serviced by PVSC and whose waste is sometimes bypassed to the Passaic River as a result of the practice I have described in this Affidavit.

Seymous A. Lubetkin

STATE OF FLORIDA §

SCOUNTY OF PAlmbhy §

Before me, Seymouk A. Lubetkin, a notary public, on this day personally appeared Seymour A. Lubetkin, known to me (or proved to me on the oath of Seymour A. Lubetkin) to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this _____ day of January, 1994.

SHARON L. MOLLENHAUER
MY COMMISSION # CC 287601
EXPRES: June 28, 1967
Sonded Thre Newsy Public Underwitten

Shalp + Mallonhaun Notary Public

NOTARY ACKNOWLEDGEMENT

STATE OF Florida COUNTY OF PAIN BALCTY.
The foregoing instrument, Afficiauit by Seymour A Labeltin. was acknowledged before me this of day of January 1994 by Seymour A. Lubetkin
Who is personally known to me or Office Literal Who has produced Liza-78-125-125 8414 as identifications
who () did (v) did not take an oath,
Acknowledger (Signature)
Shamu L. Mollanhaur: Acknowledger (Printed)
Title: S <a< td=""></a<>

AFFIDAVIT OF SEYMOUR A. LUBETKIN

INDEX OF EXHIBITS

Exhibit	Description		
A	National Pollutant Discharge Elimination System Permit to Discharge Permit No. NJ0021016 Issued to Passaic Valley Sewerage Commission Effective 2/28/75 - 6/30/77		
В	wage Flow and River Flow - PVSC Annual Reports		
	B1-B2	Annual Report to the Passaic Valley Sewerage Commission for the Year 1972, prepared by Chief Engineer S.A. Lubetkin, pgs. 163-164	
	B3-B4	Annual Report to the Passaic Valley Sewerage Commission for the Year 1973, prepared by Chief Engineer S.A. Lubetkin, pgs. 48-49	
	B5-B6	Annual Report to the Passaic Valley Sewerage Commission for the Year 1974, prepared by Chief Engineer S.A. Lubetkin, pgs. 82-83	
	B7-B8	Annual Report to the Passaic Valley Sewerage Commission for the Year 1975, prepared by Chief Engineer S.A. Lubetkin, pgs. 20-21	
	B9-B10	Annual Report to the Passaic Valley Sewerage Commission for the Year 1976, prepared by Chief Engineer S.A. Lubetkin, pgs. 16-17	
С	Waste Effluent Survey Excerpt from Annual Report to the Passaic Valley Sewerage Commission for the Year 1972, prepared by Chief Engineer S.A. Lubetkin, pgs. 38-43		

Permit No.: NJ0021016

Name of Permittee:

Passaic Valley Sewerage Commission

Effective Date: February 28, 1975

Expiration Date: June 30, 1977

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE

In reference to the application received from the above-mentioned permittee for a permit authorizing the discharge of pollutants in compliance with the provisions of the Federal Water Pollution Control Act, as amended by the Federal Water Pollution Control Act Amendments of 1972, P. L. 92-500, October 18, 1972 (33 U.S.C. §§1251-1376) (hereinafter referred to as "the Act"),

Passaic Valley Sewerage Commissioners (P. V. S. C.)

(hereinafter referred to as "the Permittee")

is authorized by the Regional Administrator, Region II, U.S. Environmental Protection Agency, to discharge from:

the P.V.S.C. Sewage Treatment Plant, 600 Wilson Avenue, Newark, New Jersey, and other locations noted herein

to receiving waters named Upper New York Bay, Third River, Newark Bay, Passaic River, and other receiving waters noted herein in accordance with the following conditions.

A. GENERAL CONDITIONS

- 1. All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and/or criminal penalties as provided for in Section 309 of the Act. Facility modifications, additions, and/or expansions that increase the plant capacity must be reported to the the permitting authority and this permit then modified or reissued to reflect such changes. Any anticipated change in the facility discharge, including any new significant industrial discharge or significant changes in the quantity or quality of existing industrial discharges to the treatment system that will result in significant new or increased discharges of pollutants must be reported to the Regional Administrator. Modifications to the permit may then be made to reflect any necessary changes in permit conditions, including any necessary effluent limitations for any pollutants not identified and limited herein. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.
- 2. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
 - a. violation of any terms or conditions of this permit;
 - b. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or,
 - c. a change in any condition that required either a temporary or permanent reduction or elimination of the permitted discharge.
- 3. Notwithstanding 2 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee shall be notified.
- 4. The permittee shall allow the head of the State water pollution control agency, the Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:

- a. to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit;
- b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
- c. to inspect at reasonable times any monitoring equipment or monitoring method required in this permit;
- d. to sample at reasonable times any discharge of pollutants;
- e. to inspect the operation of the treatment facilities.
- 5. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations; nor does it obviate the necessity of obtaining State or local assent required by law for the discharge authorized.
- 6. This permit does not authorize nor approve the construction of any onshore or offshore physical structures of facilities or the undertaking of any work in any navigable waters.
- 7. Except for data determined to be confidential under Section 308 of the Act, all monitoring reports required by this permit shall be available for public inspection at the offices of the head of the State water pollution control agency and the Regional Administrator. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act.
- 8. The diversion or bypass of any discharge from the treatment works by the permittee is prohibited, except: (1) where unavoidable to prevent loss of life or severe property damage; or (2) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the terms and conditions of this The permittee shall notify the Regional Administrator in writing within 72 hours of each diversion or bypass in accordance with the procedure specified above for reporting non-compliance. Within 30 days after such incident the permittee shall submit to EPA for approval a plan to prevent recurrence of such incidents. Normal operation of overflows and bypasses (listed in Section C-1) should not be reported under the requirements of this condition. The notification and plan herein required apply only to discharges resulting from unusual situations such as breakdowns, power failures, and bypasses occurring during dry weather periods. A summary description of discharges from bypass points should be submitted with the permittee's quarterly self-monitoring reports.

- 3. If for any reason the permittee does not comply with or will be unable to comply with any effluent limitation (treated effluent discharges) specified in this permit, or should any unusual or extraordinary discharge of wastes occur from the facilities herein permitted, the permittee shall immediately notify the Regional Administrator and appropriate State agency by telephone and provide the same authorities with the following information in writing within five days of such notification:
 - a. A description of the non-complying discharge including its impact upon the receiving waters.
 - b. Cause of non-compliance.
 - c. Anticipated time the condition of non-compliance is expected to continue, or if such condition has been corrected, the duration of the period of non-compliance.
 - d. Steps taken by the permittee to reduce and eliminate the non-complying discharge.
 - e. Steps to be taken by the permittee to prevent recurrence of the condition of non-compliance.
- Permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from non-compliance with any effluent limitation specified in this permit. The permittee will also provide accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.
- Leacept as provided in permit condition 8 on bypassing, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for non-compliance.
- Nothing in this permit shall be construed to preclude the institution of any legal action nor relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.
- 3. In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Regional Administrator and the State water pollution control agency.

- 4. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- 15. The permittee shall require the municipalities using the PVSC treatment works to report the following conditions to the permittee; the permittee shall then provide notice of the following to the Regional Administrator:
 - a. any new introduction of pollutants into such treatment works from a source which would be a new source as defined in section 306 of the Act if such source were discharging pollutants;
 - b. any new introduction of pollutants which exceeds 10,000 gallons on any 1 day into such treatment works from a source which would be subject to section 301 of the Act if such source were discharging pollutants; and,
 - c. any substantial change in volume or character of pollutants being introduced into such treatment works by a source introducing pollutants into such works at the time of issuance of the permit.

Such notice shall include information on the quality and quantity of effluent to be introduced into such treatment works; and an anticipated impact of such change in the quantity or quality of effluent to be discharged from such publicly owned treatment works.

16. The permittee shall require any industrial user of such treatment works to comply with the requirements of section 204(b), 307, and 308 of the Act. For compliance with section 204(b) of the Act, the permittee shall comply with Special Condition #3 of Federal Construction Grant No. C-34-369, and shall establish a system of user charges and industrial cost recovery in accordance with proposed regulations amending 40 CFR, Part 35, published in the Federal Register dated May 22, 1973, or any subsequent revisions.

For compliance with section 307 of the Act, the permittee shall meet the data collection, and other requirements of section C-2, "Schedule of Compliance for Industrial Discharge Information" in this permit.

- 17. The permittee shall require any industrial user of storm sewers owned by the PVSC to comply with the requirement of section 308 of the Act.
- 18. The United States Army Corps of Engineers conducts maintenance dredging of navigable waters and their tributaries pursuant to certain federal statutes. The permittee should be aware of its possible responsibilities under the maintenance dredging program. Under these laws, any person, firm or other entity discharging suspended solids into a navigable waterway of the United States, or tributary thereof, which contribute to the necessity for maintenance dredging of that waterway may be required to participate in the maintenance dredging program.

B. REQUIRED EFFLUENT LIMITATIONS AND MONITORING AND OPERATIONAL REQUIREMENTS

1.A. REQUIRED EFFLUENT LIMITATIONS

During the period beginning on the effective date of this permit and lasting until the date of expiration of this permit, discharges shall be limited and monitored by the permittee as specified below:

- a. A significant removal of settleable solids shall be achieved.
- b. See Table I.
- c. The permittee shall act to significantly reduce the concentration of floating solids prior to discharge and, except as specifically authorized in this permit, the permittee shall not discharge visible foam.
- d. The effluent values for pH shall remain within the limits of 6.0 to 9.0.
- e. From information supplied by the permittee, the design average daily flow of 225 MGD is regularly being exceeded. The preceding effluent limitations will be the determining factors in judging if this facility is adequately treating its wastewater.

1.B. ADDITIONAL EFFLUENT LIMITATION

Starting on May 15, 1975, the chlorination facilities shall be operated continuously year round. A chlorine residual concentration of not less than 0.5 mg/l shall be maintained in the effluent at all times unless the permittee demonstrates compliance with the following:

The geometric mean of the fecal coliform bacteria values for effluent samples collected in a period of 30 consecutive days shall not exceed 200 per 100 milliliters. The geometric mean of these values for effluent samples collected in a period of seven consecutive days shall not exceed 400 per 100 milliliters.

* Subject to change to an earlier date if so determined by the New Jersey Department of Environmental Protection after conclusion of their administrative hearing procedure presently underway.

2. FACILITY OPERATION AND QUALITY CONTROL

All waste collection, control, treatment and disposal facilities shall be operated in a manner consistent with the following:

- a. At all times, all facilities shall be operated as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance and testing functions required to insure compliance with the conditions of this permit.
- c. Routine maintenance of treatment facilities that results in degradation of effluent quality shall be scheduled during noncritical water quality periods and shall be carried out in a manner approved by the permitting authority.
- d. Under no circumstances shall the permittee allow introduction of the following wastes into the waste treatment system:
 - aa. Wastes which create a fire or explosion hazard in the treatment works.
 - bb. Wastes which will cause corrosive structural damage to treatment works.
 - cc. Solid or viscous substances in amounts which cause obstructions to the flow in sewers or interference with the proper operation of the treatment works.
 - dd. Wastewaters, at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods so as to cause a loss of treatment efficiency. This condition does not constitute an exception to condition C-4(A)(i)(2).

3. SELF-MONITORING AND REPORTING REQUIREMENTS

a. The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the treated discharge. Monitoring data required by this permit shall be summarized on an average calendar month basis. Individual reports are to be submitted on a quarterly basis. Duplicate original copies of the discharge monitoring report form (EPA Form 3320-1), properly completed and signed by the permittee, must be submitted within 28 days after the end of each report period to the

Regional Administrator and the State Agency at the following addresses:

U.S. Environmental Protection Agency Region II Status of Compliance Branch 26 Federal Plaza New York, New York 10007

Director
Division of Water Resources
New Jersey Department of
Environmental Protection
Labor & Industry Building
P.O. Box 1390
Trenton, New Jersey 08625

Quarterly reports will be required for periods beginning on the first day of the first month following the issuance of this permit. The data collected and submitted shall include the following parameters and testing frequencies:

See Table I

Samples and measurements of the effluent taken to achieve compliance with the monitoring requirements specified above shall be taken at the point of combined flow into the outfall sewer.

Samples and measurement of the influent wastewater taken to meet the monitoring requirements specified above shall be taken at the point of plant inflow.

b. Sampling and Analysis Methods

Other measurements of oxygen demand can be substituted for Biochemical Oxygen Demand (BOD) where the permittee can demonstrate long-term correlation of the method with BOD values. Substitution of such measurements must receive prior approval of the permitting authority.

The analytical and sampling methods used shall conform to the latest edition of the reference methods listed below. (These are interim references to be replaced by Sec. 304(g) guidelines when available.) However, different but equivalent methods are allowable if they receive the prior written approval of the permitting authority.

- 1. STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATERS, 13th edition, 1971, American Public Health Association, New York, New York 10019.
- 2. A.S.T.M. STANDARDS, PART 23, WATER; ATMOSPHER-IC ANALYSIS, 1972, American Society for Testing and Materials, Philadelphia, Pa. 19103.
- 3. METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, April 1971, U.S. Environmental Protection Agency, Water Quality Office, Analytical Quality Control Laboratory, 1014 Broadway, Cincinnati, Ohio 45202.

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to insure accuracy of measurements.

4. RECORDING

The permittee shall record for all samples the date and time of sampling, the sampling method used, the date analyses were performed, the identity of the analysts, and the results of all required analyses and measurements.

All sampling and analytical records mentioned in the preceding paragraph shall be retained for a minimum of three years. The permittee shall also retain all original recordings from any continuous monitoring instrumentation, and any calibration and maintenance records, for a minimum of three years. These periods will be extended during the course of any unresolved litigation, or when so requested by the Regional Administrator.

5. SOLIDS DISPOSAL

Collected screenings, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into navigable waters or their tributaries.

The permittee shall cooperate with the U.S. Environmental Protection Agency in the development of a sludge management program aimed at eliminating ocean disposal of sludge, and shall cooperate with other operating agencies in exploring solutions to sludge management and disposal problems.

TABLE I SELF-MONITORING REQUIREMENTS (Discharge 001) 1/

		Minimum Monitoring Requirements		
7 01076.	<u>Parameter</u>	Measurement Frequency	Sample Type	
нейняйня	il Flow, mgd , mg/1 , lbs/day*	Continuous Daily	N/A 24-hr composite	
N. Services	leable Solids, ml/1 ided Solids, mg/1 anded Solids, lbs/day*	6 per day Daily	Grab 24-hr composite	
, water	idual Chlorine, mg/1 2/ Coliform, N per 100 ml	6 per day 2/ Daily 6 per day	Grab Grab Grab	

..cept where indicated influent and effluent measurement and testing are required.

ily effluent testing required.

To be calculated using actual flow and actual testing results for parameters noted.

SECTION C

Special Conditions and Schedules for Compliance with Permit Limitations

Contents

C-1.	Descriptive Listing of Discharge Points		
C-2.	Industrial Discharge Compliance Schedule		
C-3.	Sewer System Evaluation and Rehabilitation Compliance Schedul		
C-4.	Wet Weather Flow Study Compliance Schedule		
C-5.	Facilities Upgrading Compliance Schedule		

Compliance Reporting Requirements (1)

The Permittee shall comply with the following schedules and shall report to the Regional Administrator and the State Agency within 14 days following each date on the schedules detailing its compliance or non-compliance (2) with the schedule date and requirements.

C-1 Descriptive Listing of Discharge Points

A. Discharge Points Owned by the Permittee

Discharge	Serial	Number	
and Receiv	ring Wa	ter	

<u>Discharge Description and</u>
-Location (approximate U.S.G.S. Cor.)

#001 Upper New York Bay Outfall for treated effluent, extends 3200 feet from shore to a depth of 40-60 feet. (40°42'45"N, 74°03'42" H)

#002 Newark Bay Newark Bay Bypass for treated effluent. (40042'45N, 74007'24"H)

#003 Confluence of Third River and Passaic Yantacaw St. Bypass, Clifton (40°49'17"N, 74°7'53" W)

#004 Confluence of Third River and Passaic River Yantacaw Pumping Station Overflow, Clifton (40°49'16" N, 74°7'55" N)

#005 Passaic River

Wallington Pump Station Bypass, Wallington (40°51'26" N, 74°7'9"%)

#006 Passaic River North Arlington Branch Cverflow North Arlington (40°47'12"N 74°7'51"\(\)

#007 Passaic River Hudson St. Overflow, Paterson (40°55'27" N, 74°10'7" W)

B. <u>Discharge Points Not Owned by the Permittee which work in conjunction with the Permittee's System and which are to be included as part of Section C-4</u>, wet weather flow study.

Discharge Serial Number and Receiving Water	<u>Discharge Description and</u> <pre>.Location (approximate U.S.G.S. Cor.)</pre>
and Receiving Nater	Lacation (approximate o.o.c.)
#008	East Newark, Central Avenue Overflow
Passaic River	(40°35'03" N, 74°09'55" W)
#009	Garfield, Garden State Bypass
Passaic River	(40°53'10" N, 74°07'44" W)
#010	New Street, Harrison Overflow
Passaic River	(40 ⁰ 44'49"N, 74 ⁰ 09'56" W)
#011 Passaic River	Cleveland Street, Harrison Overflow (40044'45"N. 74009'56" N)
rassaic River	(40°44 43 N, 74°03 30 N)
#012 Passaic River	Harrison Avenue, Harrison Overflow (40 ⁰ 44'42" N. 74 ⁰ 09'56" W)
#013 Passaic River	Dey Street, Harrison Overflow (40 ⁰ 44'33" N, 74 ⁰ 09'53" H)
#014 Passaic Riv er	Middlesex Street, Harrison Overflow (40 ⁰ 44'33" N, 74 ⁰ 09'53" W)
#01E	Bougas Stuach Hausigas Oursellou
#015 Passaic River	Bergan Street, Harrison Overflow (40°44'25" 11, 74°09'49" 11)
#016	Worthington Ave., Harrison Overflow
Passaic River	(40°44'21" N, 74°08'41" W)
#017	Stewart Ave., Kearny Overflow
Passaic River	(40°46'46" N, 74°07'55" W)

#018 Passaic River Washington Ave., Kearny Overflow (40°46'37" N, 74°08'00" W)

#019 Passaic River Bergen Ave., Kearny Overflow (40°45'43" N, 74°09'40" W)

#020 Passaic River Nairn Ave., Kearny Overflow (40°45'33" N, 74°09'46" W)

#021 Passaic River Marshall Street, Kearny Overflow (40°45'24" N, 74°09'51" W)

#022 Passaic River Johnston Ave., Kearny Overflow (40°45'16" N, 74°09'52" W)

#023
Franks Creek
thence to Passaic River

Ivy Street, Franks Creek Overflow, Kearny (40°45'34" N, 74°08'30" W)

#024
Franks Creek
thence to Passaic River

Bergen St., Franks Creek Overflow, Kearny (40⁰45'09" N, 74⁰08'14" W)

#025
Franks Creek
thence to Passaic River

Tappan St., Franks Creek Overflow, Kearny (40⁰45'01" N, 74⁰08'12" W)

#026
Franks Creek, a tributary
of the Passaic River

Duke St., Franks Creek Overflow, Kearny (40°44'58" N, 74°08'10" N)

#027 Passaic River Lodi force main bypass, Passaic (45°51' 25" N, 74°07'13" W)

#028 Passaic River

Verona Ave., Newark Bypass (40°46'35" N, 74°09'07" N)

#029 Passaic River Delavan Ave., Newark Bypass (40°46'11" N, 74°09'29" W)

#031 Passaic River

Third Ave., Newark Bypass (40⁰45'28" N, 74⁰09'55" W)

#032 Passaic River Fourth Ave., Newark Bypass (40°45'22" N, 74°09'56" W)

#033 Passaic River

Clay Street, Newark Bypass (40°45'03" N, 74°09'58" W)

#034 Passaic River

Orange Street, Newark Bypass (40°44'47" N, 74°10'01" W)

#035 Passaic River

Bridge Street, Newark Bypass (40°44'41" N, 74°10' 00" W)

#036 Passaic River

Rector Street, Newark Bypass (40°44'29" N, 74°09'56" W)

#037 Passaic River

Saybrook Place, Newark Bypass (40°44'26" N, 74°09'44" W)

#038 Passaic River

City Dock, Newark Bypass (40°44'07" N, 74°09'44" H)

#039 Passaic River

Jackson Street, Newark Bypass (40043'59" N, 74009'19" H)

#040 Passaic River

Polk Street, Newark Bypass (40°43'59" N, 74°09'14" H)

#041 Passaic River

Freeman Street, Newark Bypass (40044'02" N, 74008'45" N)

#042 Passaic River

Curtis Pl., Paterson Overflow (40°55'11" N, 74°10'34" H)

#043 Passaic River

Mulberry St., Paterson Overflow (40°55'12" N, 74°10'33" W)

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^{*} See Addendum

#044 Passaic River	West Broadway, Paterson Overflow (40°55'14" N. 74°10'31" N)
#045 Passaic River	Bank St., Paterson Overflow (40°55'18" N, 74°10'27" N)
#046 Passaic River	Bridge St., Paterson Overflow (40°55'23" N, 74°10'14" H)
#047 Passaic River	Montgomery St., Paterson Overflow (40°55'29" N, 74°10'03" H)
#048 Passaic River	Straight St., Paterson Overflow (40055'33" N, 74009'59" W)
#049 Passaic River	Franklin St., Paterson Overflow (40°55'36" N, 74°09'57" W)
#050 Passaic River	Keene St., Paterson Overflow (40°55'37" N, 74°09'56" N)
#051 Passaic River	Warren St., Paterson Overflow (40°55'40" N, 74°09'55" W)
#052 Passaic Riv er	Sixth Avenue, Paterson Overflow (40°56'03" N, 74°10'01" W)
#053 Passaic Riv er	East 5th St.and Fifth Ave., Paterson Overflow (40°56'11" N, 74°09'48" H)
#054 Passaic River	East 11th St., Paterson Overflow (40°56'13" N, 74°09'26" N)

#055 Passaic River

Fourth Ave., Paterson Overflow (40°56'14" N, 74°09'22" H)

#056 Passaic River		S.U.M. Park, Paterson Overflow (40°55'05" N, 74°10'45" N)
#057 Passaic River		North West St., Paterson Overflow (40°55'17" N, 74°10'33" W)
#058 Passaic River	•	Arch Street, Paterson Overflow (40°55'24" N, 74°10'14" W)
#059 Passaic River		Jefferson St., Paterson Overflow (40°55'26" N, 74°10'11" W)
#050 Passaic River		Stout St., Paterson Overflow (40°55'29" N, 74°10'09" N)
#061 Passaic River		North Straight St., Paterson Overflow (40°55'35" N, 74°10'00" !)
#062 Passaic River	:	Bergen St., Paterson Overflow (40°55'44" N, 74°09'57" W)
#063 Passaic River		Short St., Paterson Overflow (40°55'53" N, 74°10'05" W)
#064 Passaic River	•	Second Ave., Paterson Overflow (40°56'18" N, 74°08'35" N)
#065° Passaic River		Third Ave., Paterson Overflow (40°56'10" N, 74°08'30" W)
#066 Passaic River	•	33 Street and Tenth Ave., Paterson Overflow (40°55'25" N, 74°08'28" W)

Passaic River

Passaic River

#068

845720037

20th Ave., Paterson Overflow (40°54'21" N, 74°07'59" N)

Narket Street, Paterson Overflow (40°54'08" N, 74°08'05" M)

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#069 Passaic

Passaic Tail Race, Passaic Bypass (40051'27" N, 74007'13" W)

#070 Passaic River

Dundee Island Lateral, Passaic Overflow (40051'52" N, 74006'40" W)

#071 Passaic River

Woodward Ave., Rutherford Overflow (40049'52" N, 74007'15" W)

#072 Passaic River

Pierrepont Ave., Rutherford Overflow (40°49'40" N, 74°07'18" W)

#073 Passaic River

Rutherford Ave., Rutherford Overflow (40°49'20" N, 74°07'25" W)

#074 Passaic River

Second River Joint Meeting, Newark Bypass (40046'36" N. 74009'05" W)

Addendum

#030 Passaic River

Herbert Place, New ark Bypass (40°45'55" N, 74°09'35" W)

C-2. SCHEDULE OF COMPLIANCE FOR INDUSTRIAL DISCHARGE INFORMATION

It is apparent that other pollutants attributable to inputs from major contributing industries using the municipal system are also present in the facility's discharge. At such time as sufficient information becomes available to establish limitations for such pollutants, this permit may be revised to specify effluent limitations for any or all of such other pollutants in accordance with best practicable industrial technology requirements or water quality standards.

A. Not later than August 31, 1975 , the permittee shall initiate whatever actions are needed to enable the permittee to enforce all pre-treatment requirements necessary to insure compliance with the terms and conditions of this permit as well as to insure compliance by all major contributing industries with the pre-treatment standards and any other applicable regulations promulgated pursuant to Sections 307 and 308 of the Act.

By August 31, 1975, the permittee shall notify the Regional Administrator and State Agency of the actions it intends to take to comply with the above requirement.

The permittee shall require each major contributing industry to submit to the permittee periodic notice (at intervals not to exceed 9 months) regarding specific actions taken to achieve full compliance with the requirements of Section 307. On the last day of the months of March and September, the permittee shall submit to the permittissuing authority a report summarizing the progress of all known major contributing industries subject to the requirements of Section 307 towards achieving full compliance with such requirements. Such reports shall include, at least, the following information:

- (1) A narrative summary of actions taken by the permittee to develop, promulgate, and enforce its own industrial waste regulations, as well as its own legislation and thereby ensure that all major contributing industries comply with the requirements of Section 307.
- (2) The number of major contributing industries using the treatment works, divided into SIC group categories.
- (3) The number of major contributing industries known to be in full compliance with the requirements of Section 307, or not subject to these requirements; e.g., discharge only compatible pollutants.

(4) A list identifying by name those major contributing industries known to be presently in violation of the requirements of Section 307.

These semi-annual reports must be filed with the permitting authority by March 31 and September 30 of each year until compliance is achieved. Submission would be required again only if a major contributing industry reverts to violating the requirements of Section 307.

B. Immediately upon issuance of this permit, the permittee shall establish and implement a procedure to obtain from all major contributing industries specific information on the quality and quantity of effluents introduced by such industrial users. The following information shall be reported to the permitting agency on a semi-annual basis beginning March 31, 1975; semi-annual reports reflecting on change from the previous reporting period may simply relate this fact without submitting repetitive data. These reports should follow the format outlined in the Appendix to this compliance schedule. All required data must be submitted before

It shall be the responsibility of the Permittee to compute and include in the semi-annual reports the "best practicable" effluent limitations and to determine and implement necessary pre-treatment requirements (as provided for in 40 CFR Part 128) for the major contributing industries. In computing the allowable industrial inputs, the permittee shall utilize the applicable industrial effluent guidelines as published in the Federal Register.* In the first semi-annual report (due March 31, 1975), the permittee shall propose a schedule for determining the required pre-treatment information and, after approval by the permitting authority, shall implement the schedule. After receipt of the pre-treatment data, this permit may be amended to reflect the PVSC'S effluent requirements for incompatible pollutants.

NOTE: A major contributing industry is one that: (a) has a flow of 50,000 gallons or more per average workday; (b) has a flow greater than 5% of the flow carried by the municipal system receiving the waste; (c) has in its waste a toxic pollutant in toxic amounts as defined in standards issued under Section 307 (a) of the Act; or (d) has significant impact, either singly or in combination with other contributing industries, on the treatment works or the quality of its effluent.

If the permittee is unable to compute effluent limitations for any industrial source category, the permittee shall so notify the permit issuing authority. After such notification, the permit issuing authority will either assume the responsibility for such calculations or will assist the permittee in computing effluent limitations for that industrial source category.

APPENDIX TO INDUSTRIAL COMPLIANCE SCHEDULE

To comply with the industrial discharge reporting requirements outlined above, the following procedure should be utilized for each major contributing industry:

Using the following format, a description of each major contributing industry discharging to the municipal system should be prepared. A separate set of six questions should be completed for each major industrial user.

See "Section IV" of "Standard Form A" (attached).

It is the responsibility of the permittee to obtain the required information for all major industrial contributors to his facility, including those contributing via another system. Actual data should be provided, if available; otherwise the best estimate should be provided and the response marked "interim." If certain of the requested information does not apply, it should be marked "N.A."

Specific instructions follow: (Question numbers refer to those on the sheet entitled "Standard Form A - Municipal".)

- QUESTION 1 MAJOR CONTRIBUTING FACILITY: Give the name and address that designates the location of the industrial facility.
- QUESTION 2 PRIMARY STANDARD INDUSTRIAL CLASSIFICATION CODE: Using four-digit standard industrial classification (SIC) codes, indicate the type of industrial facility that is discharging into the municipal system. Standard industrial classification (SIC) code numbers and descriptions may be found in the 1972 edition of the "Standard Industrial Classification Manual" prepared by the Executive Office of the President, Office of Management and Budget, which is available from the Government Printing Office, Washington, D. C. Do not use previous editions of the manual. Copies are also available for examination at State water pollution control offices, Regional Offices of the U.S. Environmental Protection Agency, and at most public libraries.
- QUESTION 3 PRINCIPAL PRODUCT OR RAW MATERIAL: Specify either the principal product or the principal raw material and the maximum quantity per day produced or consumed. Quantities are to be reported in the units of measurement given in Table B for particular SIC cate-

gories. Enter the letter-number code from the "Code" column in Table B for the units selected under "Units." For SIC categories not listed, use the units of measurements normally used by that industry.

QUESTION 6:

Indicate the characteristics of the wastewater from the contributing industry in terms of parameters that will adequately identify the waste, such as BOD, COD, Cr, Zn, pH units, degrees Fahrenheit, etc. The characteristics should be indicative of the waste stream after any pre-treatment is provided by the industrial facility but prior to entering the municipal system.

In addition to parameter names, report values in units specified in Table A. The first column, "Parameter & Units," indicates the preferred units for reporting data for a given parameter. The second column, "Method," lists the preferred analytical method, if any, for determining the required parameter values. The next three columns, "References," give the page numbers in standard reference works where a detailed description of the recommended analytical technique given under "Method" can be found. These standard references are:

- 1. STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATERS, 13th edition, 1971, American Public Health Association, New York, New York 10019.
- 2. A.S.T.M. STANDARDS, PART 23, WATER; AT-MOSPHERIC ANALYSIS, 1972, American Society for Testing and Materials, Philadelphia, Pa. 19103.
- 3. EPA METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, April 1971, Environmental Protection Agency, Water Quality Office, Analytical Quality Control Laboratory, 1014 Broadway, Cincinnati, Ohio 45202.

Copies of these publications are available from the above sources, or for review in the Regional Offices of the U.S. Environmental Protection Agency or the State Water Control Board.

The last column, "Data Reporting Level," indicates that nearest significant figure (digit) to which the data must be reported. For example, the figure X for chloride indicates that chloride data must be reported to the nearest whole milligram per liter. This level should not be confused with "detectable limits"; applicable detection limit information can be obtained from the appropriate reference source.

Additional information obtained through the permittee's "Waste Effluent Survey" description shall be submitted for each major industry. Such additional information should include:

- (1) A brief description of industrial operations.
- (2) The quantity of water used by the industry for the preceding year, classified according to source; i.e., purchased water, well water, river water.
- (3) A description of the date and timespan of samples reported in answer to Question number 6 of "Section IV."
- (4) A description of the industry's flow variation, including hours of discharge and maximum, minimum and average flow rates.

Attachment

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STANDARD FORM A-MUNICIPAL -

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SECTION IV. INDUSTRIAL WASTE CONTRIBUTION TO MUNICIPAL SYSTEM Page

Submit a description of each major industrial facility discharging to the municipal system, using a separate Section IV for each facility description. Indicate the 4 digit Standard Industrial Classification (SIC) Code for the industry, the major product or raw material, the flow (in thousand gallons per day), and the characteristics of the wastewater discharged from the industrial facility into the municipal system. Consult Table III for standard measures of products or raw materials. (see Instructions)

7.	Major Con (see instru	ntributing Facility (ctions)						•		•	
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C-3. SEWER SYSTEM EVALUATION AND REHABILITATION COMPLIANCE SCHEDULE

- A. The permittee has, in accordance with 40 CFR 35.927, initiated a Sewer System Evaluation and Rehabilitation Program. The permittee shall, by August 31, 1976, submit to both the Regional Administrator and the NJDEP the results of Phase I (Infiltration/Inflow Analysis) of this program.
- B. If it is determined by the results obtained from the Infiltration/ Inflow Analysis that the Sewer System Evaluation and Rehabilitation Program is to continue, the permittee shall, within one month of approval of the Analysis (Phase I) Report by the USEPA and the NJDEP, submit a program for Phase II (Field Investigation and Survey), together with a proposed Engineering Contract for said work and an application for a Federal grant for this work. Within two months of approval by the USEPA of this program, contract and a grant, the permittee shall execute the contract and start Phase II of the program.
- C. Upon completion by the permittee of Phase II of the Sewer System Evaluation and Rehabilitation Program and after approval by the Regional Administrator and the NJDEP of the results of Phase II, this permit may be revised to incorporate a compliance schedule for construction or rehabilitation (Phase III) recommended by Phase II.

C-4. WET WEATHER FLOW STUDY COMPLIANCE SCHEDULE

A. Operation of Systems with Combined Sewers

- i. General Requirements
 - 1. The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in the permit from combined sewer overflows or bypasses.
 - 2. No new sources of stormwater inflow shall be connected to any separate sanitary sewers in the sewer system.

ii. Preliminary Requirements

1. Report on Maximum Treatable Flow Rates

The permittee must report to the Regional Administrator and the State agency by August 31, 1975, the maximum treatable flow rates for the treatment plant or any complete unit process. The maximum treatable flow rates must be at least equal to one of the following:

- a. The maximum hydraulic flow rate for which the treatment plant was designed, or the maximum hydraulic flow rate for which the treatment plant can provide partial treatment.
- b. The maximum flow rate that can be delivered to the plant without causing seriously adverse conditions, such as substantial property damage, in the interceptor and lateral sewer system.

The permittee shall operate the system so as to achieve the maximum treatable flow.

2. In lieu of the above, The permittee may submit a detailed operational plan designed to minimize pollutant discharges from the treatment and sewer system. The permittee must demonstrate that, if implemented, the plan would provide for a lower discharge of pollutants from the system during wet weather than that occurring if the hydraulic flow were treated during wet weather at the limiting flow rate in B.1. above. The treatment plant and sewer system shall be operated in accordance with this plan.

3. The permittee shall also report by February 28, 1977, to the permit issuance authority a proposed method for estimating the number and location of new sewer connections which will be served by combined sewers for the duration of the permit. The permittee shall also report by February 28, 1979, a proposed method for estimating the impact of the additional flows generated by these new sewer connections on the volume of discharges from the combined sewer system. This method shall be used in the development of the operational plan required in Section iii, below.

iii. Operational Plan

An interim operational plan designed to minimize the discharge of pollutants from combined sewer overflows and bypasses must be submitted by the permittee to the Regional Administrator and the State Agency by June 30, 1975. The plan will provide for optimal coordinated operation of the sewage treatment plant and contributing sewer systems. The plan will specifically:

- 1. Refine the estimate of maximum treatable flow.
- If applicable, report the number, location, types, and kinds of regulators and their respective operating history, maintenance program, and performance efficiency.
- Report the calculated or estimated storage capacities of the sewer system upstream from all control devices such as pump stations and regulators, or combined sewer discharges.
- 4. Provide operational procedures for utilizing at least 80% of the available capacity of interceptors and trunk lines upstream of any control devices such as pump stations, or regulators prior to any discharge from a combined sewer overflow or bypass; or provide, if such storage capacity utilization cannot be achieved with existing control devices, the operational procedures for maximizing the use of storage prior to any combined sewer discharge.
- 5. Provide a method to determine if the upstream storage capacity was utilized prior to any discharge from the combined sewer system.

6. Analyze the effect on the total volume of combined sewer discharges of new sewer connections anticipated for the duration of the permit. If these additional connections are expected to increase the total volume of discharges for like meteorological conditions, the plan must provide a method for the prevention of this increase by regulation or control of new connections and/or an offsetting of any added flows by such means as sewage and inflow reduction, in-system flow routing, and treatment and enlargement of sewer and treatment capacity.

B. Monitoring of Systems with Combined Sewers

i. General Requirements

Point sources so noted in Section C-1, ere overflows resulting when the hydraulic flow capacity of the system has been exceeded.

These discharge points may be utilized for wet weather overflows or bypasses to the extent specified by the approved preliminary report and interim operational plan. For all overflows the permittee is required to take the following actions:

In conjunction with the permittee's Infiltration/Inflow Analysis the permittee shall take measurements at overflow stations and at bypass points to determine overflows due to both infiltration and inflow. Such overflows shall be related to rainfall wherever possible, and time-duration curves shall be developed to establish both peak rates and total quantity overflowed insofar as may be possible. Sampling of such overflows shall be undertaken to determine the quality of the bypassed storm water flows and its effect on the River. The results of such analyses shall be included in the report required August 31, 1976. (see Condition C-3(A) on Infiltration/Inflow Analysis).

ii. 'Reporting Results

Included in the report required above, or in a separate report to be submitted by June 30, 1977, the permittee shall make recommendations concerning the alternative plans for corrective action along with recommendations for alleviating and/or treating overflow discharges including estimates of cost for implementing the alternative plans. The alternative strategies to be evaluated shall include, as a minimum:

a. dual use treatment facilities:

- storing and/or treating initial or final sewer system flushes;
- c. storage and subsequent treatment of discharges;
- d. improvements in the sewer system.

C-5 FACILITIES UPGRADING COMPLIANCE SCHEDULE

- A. The permittee shall, before August 1, 1976, complete and submit to both the Regional Administrator and the State Agency, a detailed design report and plans and specifications, together with a Step 3 Grant Application, for the Phase I* modifications to the treatment facilities. 3/ Within one year after approval by the USEPA and the NJSDEP of Phase I, the permittee shall submit a detailed design report and plans and specifications for Phase II* modifications to the treatment facilities. 3/
- B. Construction grant project number C-34-369-02, contracts numbered 480, 481, 484, 485, 487, 494, 491, 496A and 496B, is expected to be certified to the USEPA by the NJSDEP in a short time. Upon being awarded the Federal grant, the PVSC must advertise for receipt of bids in a timely manner. The following schedule shall be followed: one or more contracts must be advertised for bids within three months after receipt of the Federal grant. All nine contracts must be advertised for bids within seven months after receipt of the Federal grant.

Upon receipt by the USEPA of additional NJSDEP certified construction grant applications for completion of the facility upgrading, this permit shall be revised to include the appropriate schedules for advertising the remaining contracts.

*Facilities upgrading to be accomplished in two major construction phases. Phase I involved construction of new secondary settling facilities, biological units, pumping stations, maintenance building, etc., and the major part of the sludge handling facilities. Phase II involves the demolition of existing primary settling facilities and the construction of new primary settling facilities and the remaining sludge handling facilities.

NOTES:

- If the time period allotted for the completion of an interim requirement specified above is greater than 9 months, then the permittee shall submit a report detailing its progress toward completion of the interim requirement at the end of the first 9-month period and at the end of each succeeding 9-month period (including, of course, the report, specified above, required within 14 days following the specified completion date).
- 2/ Each notice of non-compliance shall include the following information:
 - A. a short description of the non-compliance;
 - B. a description of any actions taken or proposed to be taken by the permittee to comply with the elapsed schedule requirement without further delay;

- C. a description of any factors which tend to explain or mitigate the non-compliance; and,
- D. an estimate of the date permittee will comply with the elapsed schedule requirement and an assessment of the probability that permittee will meet the next schedule requirement on time.
- It is recognized that sufficient flexibility must be maintained so that modifications to design parameters, necessitated by the results of the sewer system evaluation and wet weather study, may be made.

This permit shall become effective on February 28, 1975.

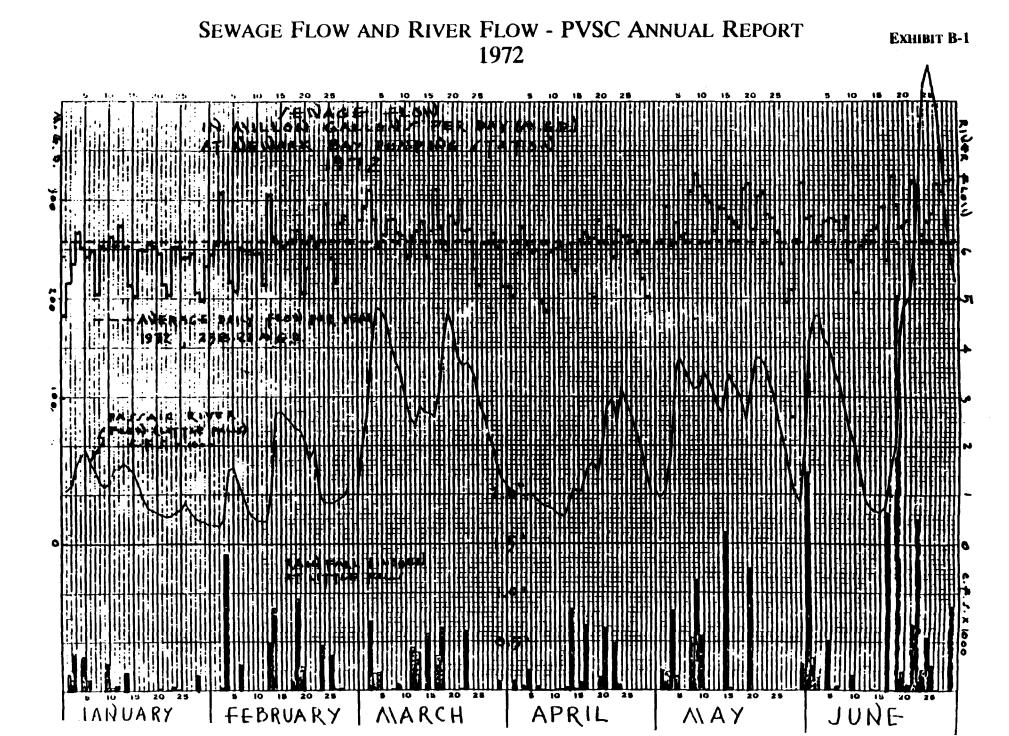
This permit and the authorization to discharge shall be binding upon the permittee and any successors in interest of the permittee and shall expire on June 30, 1977. The permittee shall not discharge after the above date of expiration. In order to receive authorization to discharge beyond the above date of expiration, the permittee shall submit such information, forms, and fees as are required by the agency authorized to issue NPDES permits no later than December 31, 1976.

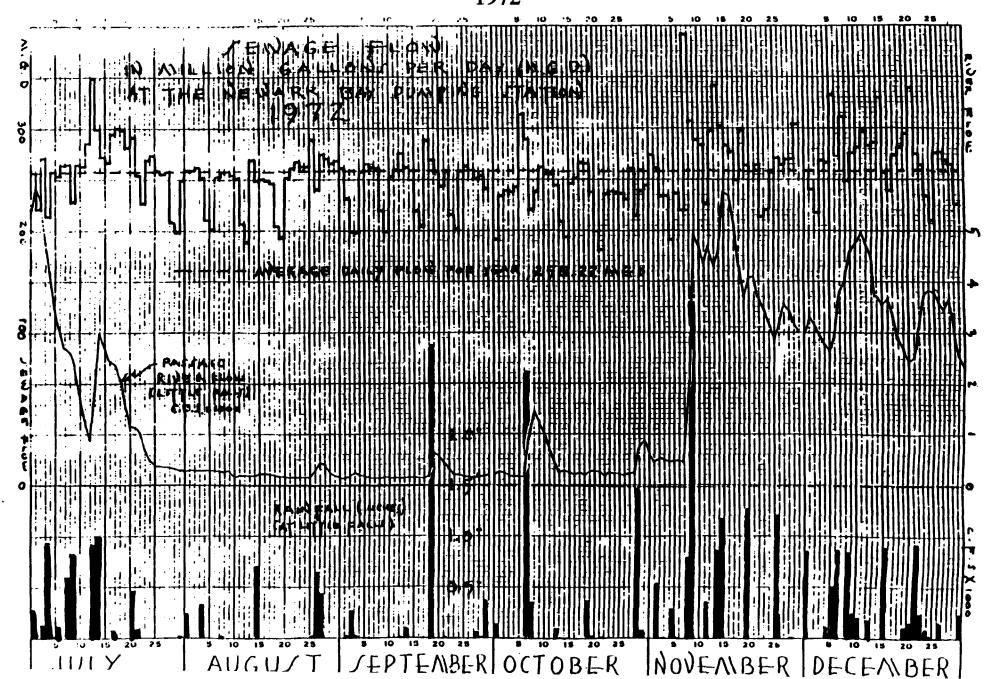
Ву	authority of	Gerald M. Hansler, P. E.
•	•	(Regional Administrator)

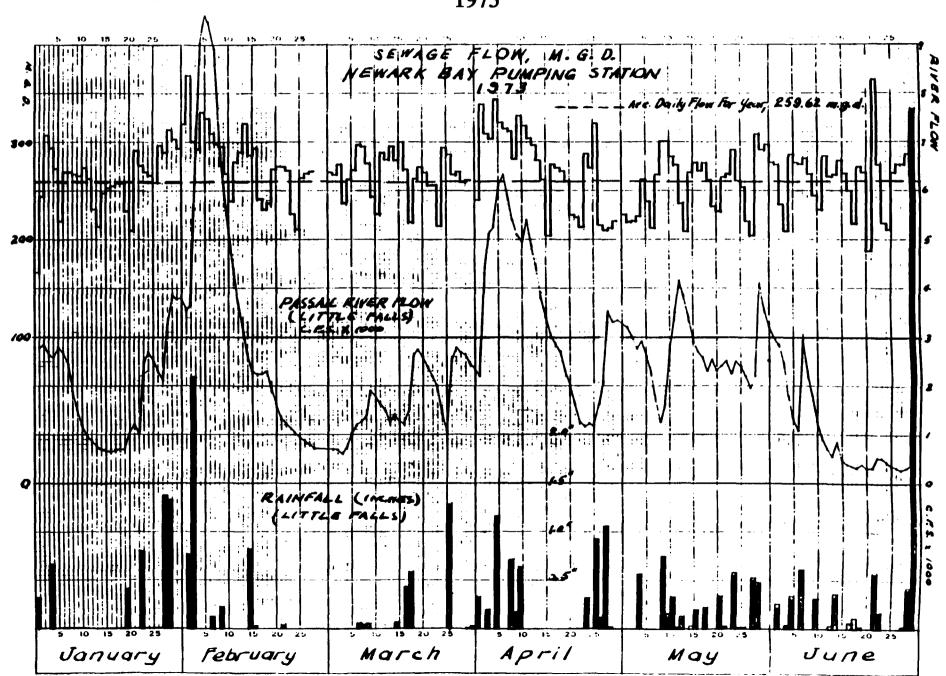
Date

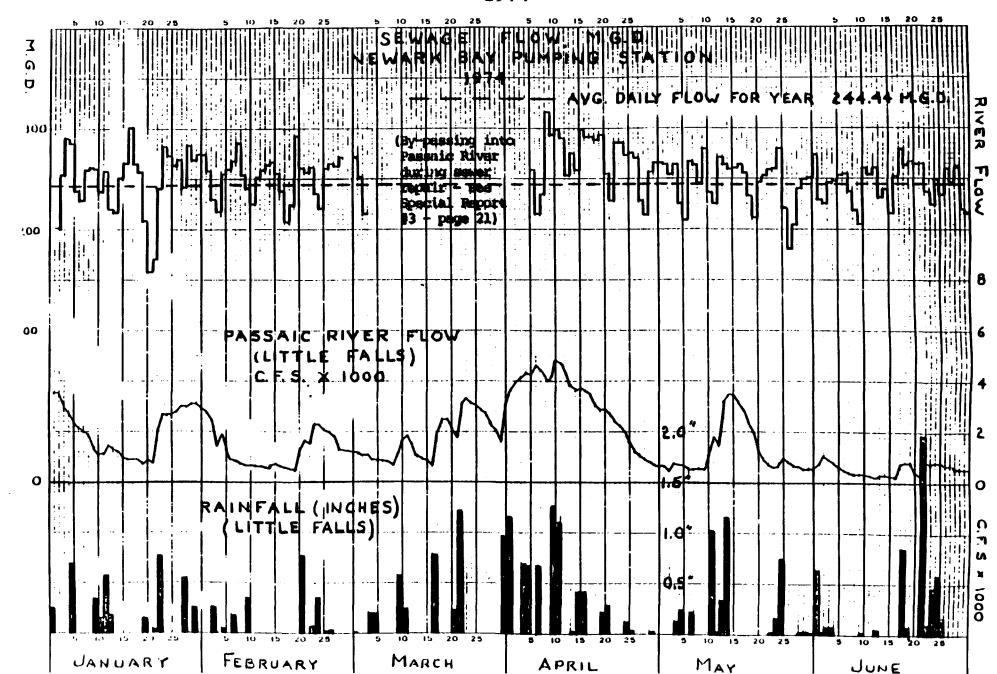
eyer Scolnick, Director Enforcement and Regional

Counsel Division



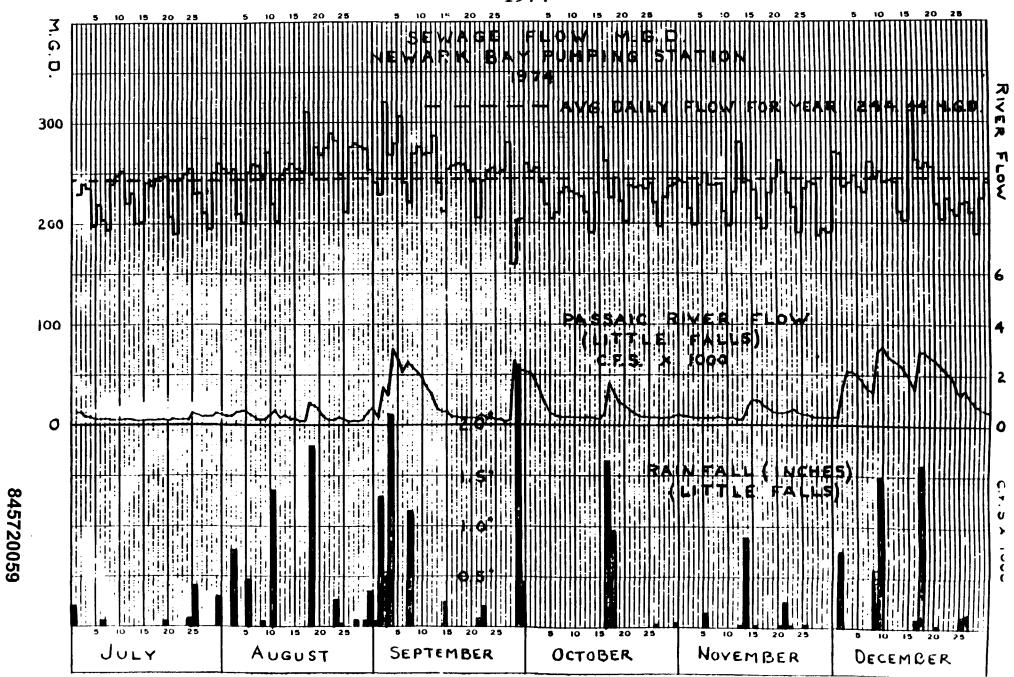


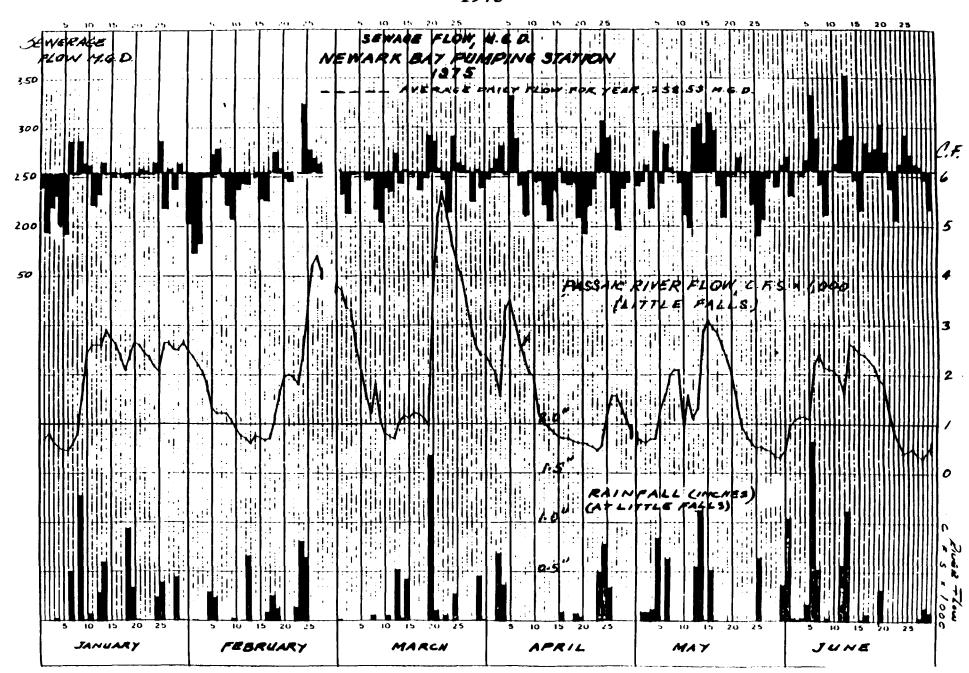


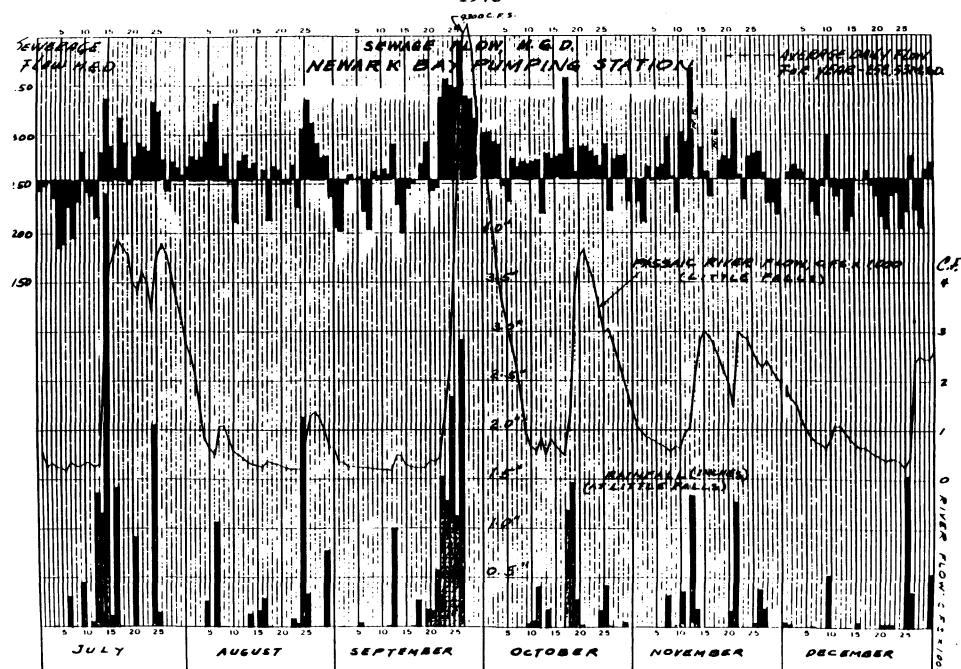


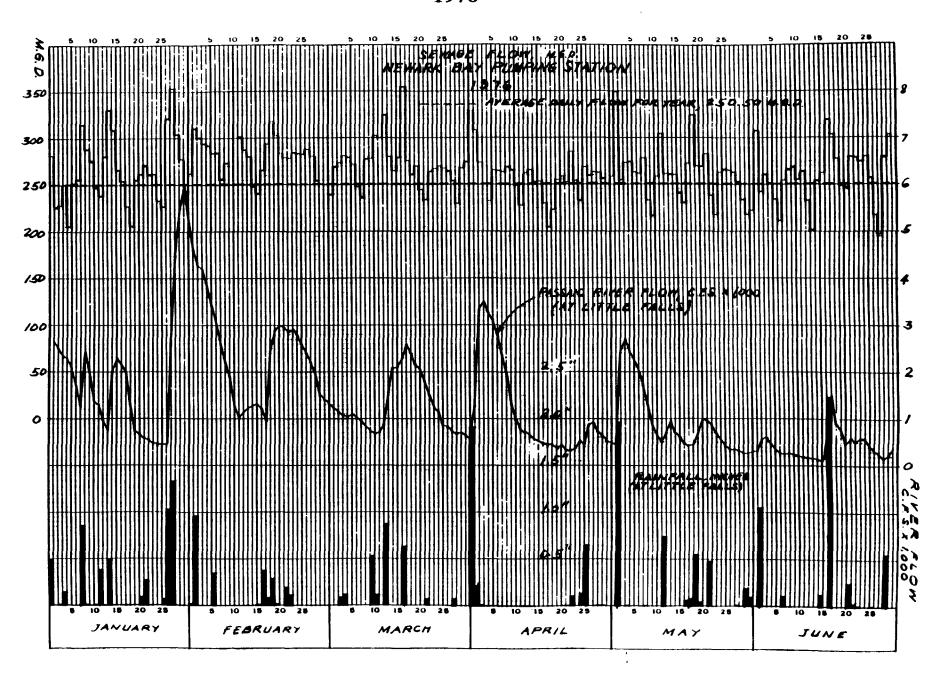
SEWAGE FLOW AND RIVER FLOW - PVSC ANNUAL REPORT 1974

Ехнівіт В-6

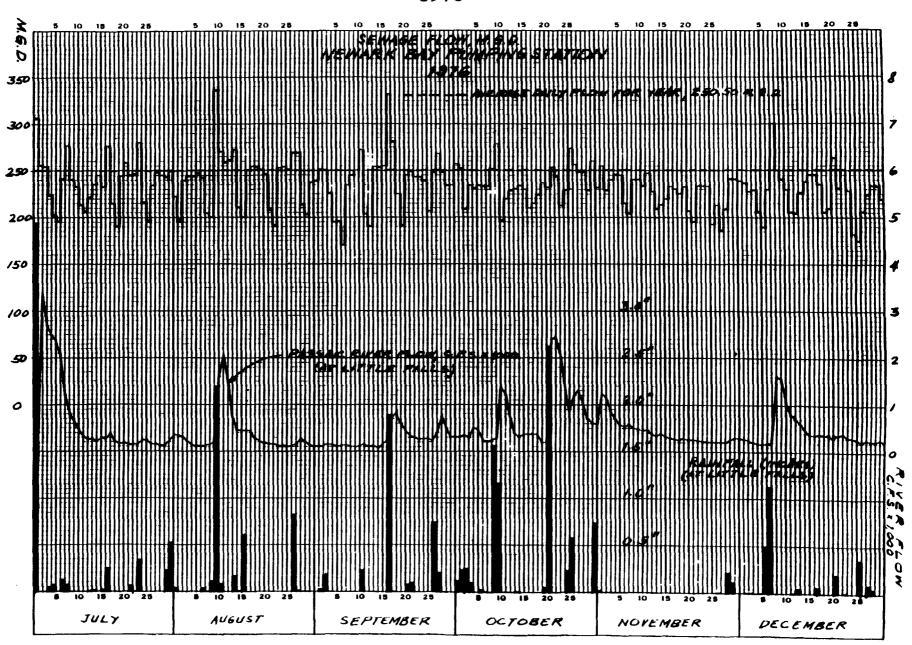








545/20062



045/20063

LOUIS BAY, 2ND CHAIRMAN

WALTER J. DAVIS VICE CHAIRMAN

CARMINE T. PERRAPATO BENJAMIN W. GORDON THOMAS LAZZIO COMMISSIONERS PASSAIC VALLEY SEWERAGE COMMISSIONERS
790 BROAD STREET
NEWARK, N.J. 07102

BEYMOUR A. LUBETKIN CHIEF ENGINEER

JAMES V. SEGRETO

MRS. CHARLES T. SCHAEDEL CLERK-TREASURER

Gentlemen:

The Passaic Valley Sewerage Commissioners are required by law to prevent pollution of the Passaic River and its tributaries, and also are required to exclude from entry into the sewerage system all discharges which may injuriously affect the integrity of the system.

In addition to these requirements of the New Jersey Statutes, new Federal regulations provide minimum standards for effluent discharges.

The Commissioners are in the process of preparing standards for industrial waste discharges, both into rivers, streams, and tributaries, and into the Passaic Valley Sewerage Commissioners' system. In order to prepare realistic standards, a questionnaire is being mailed to all industries in the Passaic Valley Sewerage Commissioners' district. Your questionnaire is enclosed.

You are required to complete the questionnaire and return it to the Passaic Valley Sewerage Commissioners within thirty days. Your cooperation is requested. Any industrial user which does not complete the questionnaire will be required to terminate the further discharge of industrial waste.

Very truly yours,

PASSAIC VALLEY SEWERAGE COMMISSIONERS

Louis Bay, 2nd

Chairman

LB/kl Enclosure Return to:
PASSAIC VALLEY SEWERAGE CONDITIONERS
THE Broad Street
Newark, N. J. 07188

	Date:
Plant Ref. No	

WASTE EFFLUENT SURVEY

(For Industries Served by the Passaic Valley Sewerage Commissioners)

Plant Name:	
Address:	
Person and Title to whom any further inquiries should be directed:	
Phone No.:	
Number of Employees:	****************
Number of Working Days Per Week:	
Number of Shifts Per Day:	
Area of Property: Acres, or	Sq. Ft.
Type of Industry and 4 digit U.S. Standard Industrial Classification No.:	
Finished Product(s):	
Average Production:	•••••
Raw Materials Used:	••••••
Brief Description of Operations:	
	•••••••••••••••••••••••••••••••••••••••

Water received in	Gallons (Note: multiply cu. it. x /.48)
Purchased w	ater in 1971 from:
1st Qua	nter
2nd Qu	arter
3rd Qu	Arter
4th Qua	ATTET
To	tal Purchased 1971:
Well Water	
lst Qua	kter
2nd Qu	arter
3rd Qu	ATCT
4th Qu	arter
Total w	rell water received in 1971:
River Water	
lst Qua	urter
2nd Qu	arter
3rd Qu	arter
4th Qu	arter
То	tal river water taken in 1971:
то	OTAL OF ALL WATER RECEIVED IN 1971:
Water Use in 19	71:
Water to Pr	oduct (include evaporated and lost water):
Water to Sai	nitary Sewer:
Water to Sto	orm Sewer, River or Ditch:
TOTA	L WATER USE IN 1971:
Name of River,	Stream, or Tributary, and location of storm sewer or ditch outlet to river, stream
or tributary:	

ANSWER THE FOLLOWING QUESTIONS ONLY IF THE PLANT WASTE INCLUDES WASTE ATTRIBUTABLE TO INDUSTRIAL OPERATIONS

(Note: Analyses should be based on a 24-hour composite sample)

if	Characteristics of Plant Waste discha- f any. Indicate units of measure where app			wer, after treatme
	ı) pH:			
	:) Temperature:		•	No
e)	e) Solids Concentration:			
	1) Total Solids	Volatile	Mine	ral
	2) Suspended Solids	Volatile	Mine	eral
f)) Oil and Grease Concentration:			
	1) Floatable Oils			*******************
	2) Emulsified Oils			••••••••••
g)	g) Chlorides		PA-4400000000000000000000000000000000000	*****************
h)	n) Chemical Oxygen Demand (C.O.D.):		•••••••••	******************************
i)) 5-day Bio-chemical Oxygen Demand (B.O	.D.):	***************************************	***************************************
j)) Total organic carbon (T.O.C.):			**************************************
k)	hex. and triv. Antimony, Lead, Mercury, total daily discharge of each metal.)	Copper, Vanadi	ium, Nickel; giv	e concentration as
1)) Toxic Material—Name and concentration	e.g., cyanide sal	ts, etc.):	••••••••••••••••••••••••••••••••••••••
m	m) Solvents—Name and concentration:		••••••••••••	••••••
	n) Resins—Name and concentration (Lacq			
0)	Date and time span of sample			
(c m 3	Explain hours, method of discharge of (continuing for 8 hours per day, 5 days per variantees at 100 gal./min.) (Continuous 24 M.G.D.) etc.	week at 100 gal. 4 hours steady	/day rate) (batcoor with peaks at	h twice a day for 2 P.M., peak r

Characteristics of Plant Discharge to Indicate units of measure where applicable (treatment it any.
a) pH:	. b) Turbidity:	•••••••
c) Temperature:	d) Radioactive? Yes	. No
e) Solids Concentration:		
1) Total Solids	Volatile Mineral	•••••
2) Suspended Solids		•••••
f) Oil and Grease Concentration:		
1) Floatable Oils		
2) Emulsified Oils		
g) Chlorides		
h) Chemical Oxygen Demand (C.O.D.):		
i) 5-day Bio-chemical Oxygen Demand (B.O		
j) Total Organic Carbon (T.O.C.):		
k) Metallic Ions—Name and concentration (hex. and triv. Antimony, Lead, Mercury total daily discharge of each metal.):	Copper, Vanadium, Nickel; give o	concentration and
I) Toxic Material—Name and concentration (m) Solvents—Name and concentration:	e.g., cyanide salts, etc.):	
III) DOIVCING—IVAINC AND CONCENTRATION.		
n) Resins-Name and concentration (Lacqui		
o) Date and time span of sample:		
Do you pretreat any waste before discharge?		
If so, describe process and disposal of residue		
•		

Certification of Laboratory doing samp shall be those shown in the 13th edition of S Wastewater, where applicable. If no procedure and procedure used in analyses.	oling and making analyses shall be grandard Methods for the Examinati	given. Procedures on of Water and
	Signature and title of person p	

The industries covered are those identified in the Federal Standard Industrial Classification Manual, Bureau of Budget, under Category "Division D - Manufacturing".

A breakdown of the 348 industries with industrial waste and approximate volume is as follows:

Name of	No. of Indus-	No. of In-	M. G.	<u>M. G.</u>
Municipality	tries with Industrial Waste Forms Submitted	dustries In This Summary With Com- pleted Forms	Per Year (From 277 Indus- tries)	Per Day (From 277 Indus- tries)
BERGEN COUNTY				
East Paterson East Rutherford Fair Lawn Garfield Glen Rock Lodi Lyndhurst No. Arlington Rutherford Saddle Brook Wallington BERGEN COUNTY TOTAL	3 4 12 6 1 9 2 0 0 4 1 42	3 4 11 6 1 7 2 0 0 3 0	1,095.7 131.7 267.4 3,071.4 1.3 228.8 180.1 0 7.7	3.00 .47 1.03 8.53 .005 .87 .69 0 0
ESSEX COUNTY Belleville Bloomfield East Orange Glen Ridge Montclair Newark Nutley Orange ESSEX COUNTY TOTALS	10 7 1 0 0 112 7 3	9 7 0 0 0 85 6 3	406.1 465.6 0 0 6,329.4 1,953.4 420.9	1.56 1.57 0 0 20.22 6.35 1.62
East Newark Harrison Kearny HUDSON COUNTY TOTAL: PASSAIC COUNTY	0 11 15 26	0 9 13 22	1,392.6 911.5 2,304.1	0 4.98 3.51 8.49
Clifton Haledon Hawthorne Little Falls Passaic Paterson Prospect Park PASSAIC COUNTY TOTAL	34 7 11 0 21 67 0 140	25 4 10 0 16 53 0 108	1,869.6 437.9 913.5 0 433.1 2,120.5 0 5,774.6	6.47 1.69 3.52 0 1.53 7.67 0 20.88

PASSAIC VALLEY SEWERAGE COMMISSIONERS

INDUSTRIAL SEWER CONNECTION PERMIT

98012-20437-014-022 (West)

(Please use the Permit Number on any correspondence with PVSC)

NAME Earthline Company	
NUMBER & STREET 100 Lister	Avenue
MUNICIPALITY Newark, Ne	w Jersey
The Industrial Sewer Connection Applica	ation for the above company has been approved at the PVSC
Board meeting ofDecember	30, 1977
Permit ClassificationCategory	IIA
This permit is issued for a flow of	79.000 gallons per day (based on yearly average).
· · · · · · · · · · · · · · · · · · ·	nonths exceeds by 10% or more the permit amount. By exceeds by 20% or more the permit amount (unless a
The following attachments are part of the	nis permit:
(1) General Conditions	Pages GC-1, GC-2 (Attached)
(2) Monitoring	Pages PM-1, (Attached)
(3) Pretreatment Requirements	Page PR-1, Rev 1 (10/77) (Attached
(4) Other Permit Conditions	Page SC-1 thru SC-17 (Attached)
	require that an Industrial Sewer Waste Revision Application beinge in a facility or process which significantly affects the qualcharge.
	PASSAIC VALLEY SEWERAGE COMMISSIONERS
	bý: / Land ()
Effective Date:	Thomas J. Cifelyi, Chairman

GENERAL CONDITIONS OF AN INDUSTRIAL SEWER CONNECTION PERMIT WITH THE PASSAIC VALLEY SEWERAGE COMMISSIONERS

- 1. The following wastes may never be discharged into the PVSC system:
 - (a) Wastes that may create a fire or explosion hazard in the sewer, or wastewater facility, such as gasoline, fuel oil, cleaning solvents, etc.
 - (b) Wastes that may impair the hydraulic capacity of the sewer system, such as ashes, sand, metal, etc.
 - (c) Wastes that may create a hazard to people, the sewer system, the treatment process, or the receiving water, such as dangerous levels of toxic materials.
- 2. The following wastes may not be discharged without special permission, available on a case by case basis after the applicant proves the discharge not to be detrimental by reason of small volume:
 - (a) Any discharge in excess of 150° F (65°C).
 - (b) Any discharge containing more than background level of radioactivity.
 - (c) Any discharge containing more than 100 mg/l of mineral oil or grease.
 - (d) Any discharge containing floatable oil or grease.
 - (e) Any discharge of heavy metals, cyanides or any other toxic materials in toxic amounts, which amounts are to established by PVSC.
 - (f) Any discharge quantities of flow or concentration which shall constitute a "slug". A "slug" shall mean a discharge of a rate of flow or concentration of any given constituent which exceeds for any period of 15 minutes more than five times the average daily concentration.
 - (g) Wastes with pH outside the limits of 5.0 to 9.0.

- 3. No uncontaminated water (e.g. cooling water, etc.) shall be discharged into the PVSC system except with the prior written consent of the PVSC.
- 4. This permit is granted on the condition that a PVSC inspector or authorized employee of PVSC, NJDEP, USEPA, or the municipality, must be given immediate access to any industry at any time during normal working hours or at any other time that an industry is discharging into either the PVSC system or into any of the waters under jurisdiction of the PVSC in order that the inspector may check the quality of the discharge, take samples, tests, and measurements.
- 5. No discharge into the treatment facilities of PVSC shall be permitted from any source which causes physical damage, interferes with the treatment process, or results in a violation of effluent limitations or other conditions contained in the National Pollution Discharge Elimination System Permit to Discharge issued to PVSC by the USEPA.
- 6. If the industrial user violates any of the terms of the permit or regulations, he shall be subject to civil and/or criminal penalties and fines in accordance with judicial procedures as provided for in Section 309 of P.L. 92-500.
- 7. Violation of any of the terms of the permit or regulations, or of any municipal ordinance, may result in the termination of the permit and/or termination of authorization to discharge into the PVSC system.
- 8. Nothing in this permit shall allow the industry to discharge any material that is illegal because of State or Federal Regulations.
- 9. The permittee agrees to abide by all the rules and regulations of the Passaic Valley Sewerage Commissioners and agrees to pay user charges and industrial cost recovery charges, when they are assessed.
- 10. The permittee shall submit an up-dated Effluent Waste Survey Report annually. The first report is due 90 calendar days after the commencement of operations.

MONITORING

- 1. The permittee will install an automatic sampler, acceptable to PVSC, on each outlet to the sanitary sewer and at permittee' expense. This sampler will be capable of taking individual sequential samples at approximately one hour intervals, for at least 24 continuous hours. Suitable devices will be installed to insure access to the sampler only by PVSC personnel.
- 2. The permittee will install the following recording devices, acceptable to PVSC on each outlet to the sanitary sewer. Copies of the recorded information will be provided to PVSC weekly:
 - a. pH b. Lower explosive Limit (LEL)
- 3. The permittee will submit a quarterly monitoring report for each outlet to PVSC summarizing the analyses as listed below:

Effluent Characteristic	Monitoring F	Requi	reme:	nt
	Frequency		Sam	ple Type
Total Flow (Gallons)	Quarterly		-	
Total Solids (TS)	Daily	24	Hr.	Composite
Total Suspended Solids (TSS)	Daily	*1	••	
Total Organic Carbon (Toc)	Daily	94	••	
Biochemical Oxygen Demand (BOD) Daily	11	**	
Chemical Oxygen Demand (COD)	Daily	***	**	
Chlorides (Cl)	Twice Weekly	**	••	
Sulfates (SO ₄ -2)	Twice Weekly	**	11	

Included in the report will be the number of days worked during the reporting period.

- 4. The Permittee shall submit the Monitoring Report within 14 calendar days of the end of the reporting period.
- 5. The following limitations apply to the discharge of Total

 Suspended Solids from all outlets to the sanitary sewer combin

 This limitation shall not permit the violation of any of the other terms of the permit.

Effluent Characteristics	Ef		
	Maximum	Average of daily	,
•	for any	values for up to	31
	one day	Consecutive Work	Days.

Total Suspended Solids (TSS) 30 Tons 15 Tons (Dry Basis)

6. PVSC reserves the right to modify the monitoring requirements listed above.

PRETREATMENT REQUIREMENTS

This permit is issued with the express understanding that as the regulations come from the U. Ş. Government, and as PVSC determines what pretreatment it will require (if any) concerning heavy metals, other toxics, or any other substances that this permit will be modified and the classification changed to include such pretreatment requirements.

(Rev. 1 - 10/77)

OTHER PERMIT CONDITIONS

- 1. Although this permit is issued for the average daily flow of 179,000 gallons per day, based on a yearly average, it is understood that the actual rate of flow will be 250,000 gallons per day on a 5 day basis.
- 2. The permittee will control the rate of discharge to the sanitary sewer in order to avoid exceeding the hydraulic capacity of the sanitary sewer.
- 3. The known illegal cross connection between the storm sewer and sanitary sewer on Lister Avenue, as shown on Applicants Exhibit AsB, will be eliminated prior to commencing operation:
- 4. Any other illegal connections between the storm and sanitary sewers will be eliminated as quickly as possible when encountered.
- 5. Representatives of the PVSC will conduct a detailed inspection of each process unit prior to the commencement of operations. The process unit may not commence operations until PVSC is satisfied that startup of the process unit will not violate PVSC Rules and Regulations as well as the terms of this permit
- 6. The permittee will furnish to the PVSC, prior to the commence ment of operations, a detailed plot plan, identifying the various processing units and all sanitary and storm piping.
- 7. The discharge of uncontaminated water (eg cooling water, etc.) will be eliminated from the sanitary sewer within nine months of the effective date of this permit. Within 90 calendar days of the effective date of this permit, the Permittee will propose a plan to PVSC to eliminate this discharge.
- 8. In addition to the requirements of General Condition No. 4 the PVSC Inspectors shall have access to all company records pertaining to quantities and types of materials processed and to the companies supplying materials.
- 9. Additionally, if the Commissioners find that the Permittee is discharging hazardous substances not covered by the permit or sections which are not within the specifications set forth by this permit and that such discharge threatens the sewer system and/or life or property, the Commissioners may order the Permittee to cease such discharge and to that end, the Commissioners may order the permittee to temporarily cease all operations until the unlawful discharge is eliminated. The Permittee agrees to the preceeding authorization of the Commissioners and further agrees to cease such unlawful discharge are operations upon order of the Commissioners, without the necess of the Commissioners to resort to the relief of the Court. By virtue of this paragraph, the Permittee expressly agrees to

waive any right to protest the order of the Commissioners, and the Permittee expressly agrees to waive any claims for damages which the Permittee may suffer as a result of compliance with the order of the Commissioners.

10. This permit is issued subject to the stipulations and conditions of the Passaic Valley Sewerage Commissioners Resolution No. 13 passed at the Commission meeting of December 30, 1977. This resolution, together with requirements and conditions of other agencies referred to in the resolution, are made part of this permit. Copies of the resolution, together with the attachments, are incorporated as part of this permit.

Additionally, a copy of the Earthline letter of January 9, 1978, accepting all of the conditions and terms of the resolutio is made an attachment of the permit.

PASSAIC VALLEY SEWERAGE COMMISSIONERS

INDUSTRIAL SEWER CONNECTION PERMIT

98011-20437-014-022 (East)

(Please use the Permit Number on any correspondence with PVSC)

NAME Earthline Company		
NUMBER & STREET 100 Lister	Avenue	
MUNICIPALITY Newark, New	Jersey	
	ication for the above company has been approved at the PVSC	
Board meeting ofDecember 3	30, 1977	
Permit ClassificationCategory IIA		
This permit is issued for a flow of	gallons per day (based on yearly average).	
	months exceeds by 10% or more the permit amount. days exceeds by 20% or more the permit amount (unless a in the General Conditions).	
(1) General Conditions	Pages GC-1 GC-2 (Attached)	
(2) Monitoring	Pages PM-1, PM-2 (Attached)	
(3) Pretreatment Requirements	Page PR-1 Rev 1(10/77) (Attached)	
(4) Other Permit Conditions	Page SC-1 thru SC-17 (Attached)	
Note: The PVSC Rules and Regulations submitted prior to making any chity or quantity of its industrial di	require that an Industrial Sewer Waste Revision Application be lange in a facility or process which significantly affects the qualischarge.	
	PASSAIC VALLEY SEWERAGE COMMISSIONERS	

Effective Date: January 9, 1978

GENERAL CONDITIONS OF AN INDUSTRIAL SEWER CONNECTION PERMIT WITH THE PASSAIC VALLEY SEWERAGE COMMISSIONERS

- 1. The following wastes may never be discharged into the PVSC system:
 - (a) Wastes that may create a fire or explosion hazard in the sewer, or wastewater facility, such as gasoline, fuel oil, cleaning solvents, etc.
 - (b) Wastes that may impair the hydraulic capacity of the sewer system, such as ashes, sand, metal, etc.
 - (c) Wastes that may create a hazard to people, the sewer system, the treatment process, or the receiving water, such as dangerous levels of toxic materials.
- 2. The following wastes may not be discharged without special permission, available on a case by case basis after the applicant proves the discharge not to be detrimental by reason of small volume:
 - (a) Any discharge in excess of 150° F (65°C).
 - (b) Any discharge containing more than background level of radioactivity.
 - (c) Any discharge containing more than 100 mg/l of mineral oil or grease.
 - (d) Any discharge containing floatable oil or grease.
 - (e) Any discharge of heavy metals, cyanides or any other toxic materials in toxic amounts, which amounts are to established by PVSC.
 - (f) Any discharge quantities of flow or concentration which shall constitute a "slug". A "slug" shall mean a discharge of a rate of flow or concentration of any given constituent which exceeds for any period of 15 minutes more than five times the average daily concentration.
 - (g) Wastes with pH outside the limits of 5.0 to 9.0.

- 3. No uncontaminated water (e.g. cooling water, etc.) shall be discharged into the PVSC system except with the prior written consent of the PVSC.
- 4. This permit is granted on the condition that a PVSC inspector or authorized employee of PVSC, NJDEP, USEPA, or the municipality, must be given immediate access to any industry at any time during normal working hours or at any other time that an industry is discharging into either the PVSC system or into any of the waters under jurisdiction of the PVSC in order that the inspector may check the quality of the discharge, take samples, tests, and measurements.
- 5. No discharge into the treatment facilities of PVSC ______ shall be permitted from any source which causes physical damage, interferes with the treatment process, or results in a violation of effluent limitations or other conditions contained in the National Pollution Discharge Elimination System Permit to Discharge issued to PVSC by the USEPA.
- 6. If the industrial user violates any of the terms of the permit or regulations, he shall be subject to civil and/or criminal penalties and fines in accordance with judicial procedures as provided for in Section 309 of P.L. 92-500.
- 7. Violation of any of the terms of the permit or regulations, or of any municipal ordinance, may result in the termination of the permit and/or termination of authorization to discharge into the PVSC system.
- 8. Nothing in this permit shall allow the industry to discharge any material that is illegal because of State or Federal Regulations.
- 9. The permittee agrees to abide by all the rules and regulations of the Passaic Valley Sewerage Commissioners and agrees to pay user charges and industrial cost recovery charges, when they are assessed.
- 10. The permittee shall submit an up-dated Effluent Waste Survey Report annually. The first report is due 90 calendar days after commencement of operations.

MONITORING

- 1. permittee will install an automatic sampler, acceptable to PVSC, on each outlet to the sanitary sewer and at permittee's expense. This sampler will be capable of taking individual sequential samples at approximately one hour intervals, for at least 24 continuous hours. Suitable devices will be installed to insure access to the sampler only by PVSC personnel.
- The permittee will install the following recording devices, acceptable to PVSC, on each outlet to the sanitary sewer. Copies of the recorded information will be provided to PVSC weekly:
 - a. pH b. Lower Explosive Limit (LEL)
- 3. The permittee will submit a quarterly monitoring report for each outlet to PVSC summarizing the analyses as listed below:

Effluent Characteristic	Monitoring Requirement		
	Frequency	Sample	Type
Total Flow (Gallons)	Quarterly	- -	
Total Solids (TS)	Daily	24 Hr.	Composite
Total Suspended Solids (TSS)	Daily	11 11	
Total Organic Carbon (TOC)	Daily	n 11	
Biochemical Oxygen Demand (BOD)	Daily	11 11	
Chemical Oxygen Demand (COD)	Daily	11 11	
Chlorides (C1)	Twice Weekly	11 11	
Sulfates (SO_A-2)	Twice Weekly	99 99	

Included in the report will be the number of days worked during the reporting period.

- 4. The Permittee shall submit the Monitoring Report within 14 calendar days of the end of the reporting period.
- 5. The following limitations apply to the discharge of Total Suspended Solids from all outlets to the sanitary sewer combined. This limitation shall not permit the violation of any of the other terms of the permit.

Effluent Characteristic

Effluent Limitation

Maximum for any one day

Average of Daily values for up to 31 Consecutive Work Days.

Total Suspended Solids(TSS) 30 Tons (Dry Basis)

15 Tons

6. PVSC reserves the right to modify the monitoring requirements listed above.

PRETREATMENT REQUIREMENTS

This permit is issued with the express understanding that as the regulations come from the U.S. Government, and as PVSC determines what pretreatment it will require (if any) concerning heavy metals, other toxics, or any other substances that this permit will be modified and the classification changed to include such pretreatment requirements.

(Rev. 1 - 10/77)

OTHER PERMIT CONDITIONS

- 1. Although this permit is issued for the average daily flow of 536,000 gallons per day, based on a yearly average, it is understood that the actual rate of flow will be 750,000 gallons per day on a 5 day basis.
- 2. The permittee will control the rate of discharge to the sanitary sewer in order to avoid exceeding the hydraulic capacity of the sanitary sewer.
- 3. The known illegal cross connection between the storm sewer and sanitary sewer on Lister Avenue, as shown on Applicants Exhibit A&B, will be eliminated prior to commencing operations.
- 4. Any other illegal connections between the storm and sanitary sewers will be eliminated as quickly as possible when encountered.
- 5. Representatives of the PVSC will conduct a detailed inspection of each process unit prior to the commencement of operations. The process unit may not commence operations until PVSC is satisfied that startup of the process unit will not violate PVSC Rules and Regulations as well as the terms of this permit.
- The permittee will furnish to the PVSC, prior to the commencement of operations, a detailed plot plan, identifying the various processing units and all sanitary and storm piping.
- 7. The discharge of uncontaminated water (eg cooling water, etc.). will be eliminated from the sanitary sewer within nine months of the effective date of this permit. Within 90 calendar days of the effective date of this permit, the Permittee will propose a plan to PVSC to eliminate this discharge.
- 8. In addition to the requirements of General Condition No. 4 the PVSC Inspectors shall have access to all company records pertaining to quantities and types of materials processed and to the companies supplying materials.
- 9. Additionally, if the Commissioners find that the Permittee is discharging hazardous substances not covered by the permit or sections which are not within the specifications set forth by this permit and that such discharge threatens the sewer system and/or life or property, the Commissioners may order the Permittee to cease such discharge and to that end, the Commissioners may order the permittee to temporarily cease all operations until the unlawful discharge is eliminated. The Permittee agrees to the preceeding authorization of the Commissioners and further agrees to cease such unlawful discharge and operations upon order of the Commissioners, without the necessit of the Commissioners to resort to the relief of the Court. By virtue of this paragraph, the Permittee expressly agrees to

waive any right to protest the order of the Commissioners, and the Permittee expressly agrees to waive any claims for damages which the Permittee may suffer as a result of compliance with the order of the Commissioners.

10. This permit is issued subject to the stipulations and conditions of the Passaic Valley Sewerage Commissioners Resolution No. 13 passed at the Commission meeting of December 30, 1977. This resolution, together with requirements and conditions of other agencies referred to in the resolution, are made part of this permit. Copies of the resolution, together with the attachments, are incorporated as part of this permit.

Additionally, a copy of the Earthline letter of January 9, 1978, accepting all of the conditions and terms of the resolution is made an attachment of the permit.

MEMORANDUM

TO: S. A. Lubetkin, Chief Engineer

FROM: E. J. Moller, Ass't. Chief Engineer

DATE: December 14, 1977

SUBJECT: Industrial Connection Permit Request

From Earthline Chemical Co., Newark, N.J.

The above company is requesting approval to make an industrial connection in the Lister Street area of Newark. Their intention is to construct and operate a type of industrial waste treatment plant, where they will selectively accept chemical wastes, processing these liquids to render them relatively innoccuous, then discharge them through the sewer system of the City of Newark into our treatment plant.

It is the intention of the owners to accept and process relatively large volumes of hazardous and difficult to disposal of wastes coming from industrial customers located within and outside the boundaries of our sewer district. There is little question that this facility is needed in this area and that it will help in providing alternates to the present illegal dumping of wastes throughout the State of New Jersey. With a need which will be even greater in the near future when ocean cumping ceases, and industrial pre-treatment requirements are instituted, creating many new sources of concentrated wastes requiring ultimate disposal. In addition to detoxifying and neurtalizing wastes prior to disposal, the owners also have stated intentions to recover various marketable elements in these wastes.

This application has been presented to the Commissioners for their approval within a very short time period, along with an urgent request for immediate approval because of their problems concerning property purchasing options. This has placed our staff in a position of making a quick judgement on an industrial waste permit, which is well outside of the usual variety. The statements of the owners representatives being, "that if they do not get permission at the Commissioners Meeting of December 14, 1977, that they cannot buy the property or locate their plant within the City of Newark".

We have reviewed those materials and data presented to us and noted that approval has already been given by the New Jersey State D.E.P. Bureau of Solid Waste Management and the City of Newark, both permits containing many restrictions, requirements and controls, designed to assure that the plant operators will

live up to their stated intentions and that the facility will be an asset to the environment rather than a new concentrated source of environmental problems.

of particular concern to the Commissioners, is the nature of the materials which will be discharged to our present and new treatment facility and that quality controls are maintained in this proposed plant to prevent their discharging of materials (i.e. - heavy metals, toxics, excessive solids, etc.) detrimental to our treatment plant and our discharge permits. In this area we have questioned a potential maximum volume of solids they could discharge, an amount which could appreciably increase our sludge production (up to a possible 20% increase). The figures supplied to our office are being revised by the owners representatives to state in writing that the average solids anticipated from their operations is considerably below this potential (an approximate average of fifteen tons per day, for an increase in our sludge production of about 5%). They are also stating a maximum tonnage to be anticipated.

While considering the environmental necessity for this facility and the strong desires by the Newark area, but also primarily considering the protection of the interests of the Commissioners, it is my recommendation at this time that we issue them a permit with attached conditions, requirements and restrictions, (including those of the D.E.P. and the City of Newark) as well as our own individual covenants. In addition, it is my recommendation that we include in this permit a prime condition which is that the Commissioners have the unquestioned right to make the plant immediately stop operations if and when they start discharging detrimental materials. This power to be of a nature not first requiring access to the courts for application. If the owners fail to agree to this condition at this time, it is my recommendation that we hold off giving permission until further consideration and studies can be made.

It is to be understood that we are not intending to include complete details of these permit requirements for inclusion with the resolution presented for passage by the Commissioners at their meeting of December 14th. The reason for this is the short time period involved for a thorough preparation. If this fact is considered objectionable by the applicant or on legal grounds, then we will have to hold off on approval.

Edward J. Moller,

Assistant Chief Engineer

(SC-1)



OTHER PERMIT CONDITIONS

- 1. Although this permit is issued for the average daily flow of 179,000 gallons per day, based on a yearly average, it is understood that the actual rate of flow will be 250,000 gallons per day on a 5 day basis.
- 2. The permittee will control the rate of discharge to the sanitary sewer in order to avoid exceeding the hydraulic capacity of the sanitary sewer.
- 3. The known illegal cross connection between the storm sewer and sanitary sewer on Lister Avenue, as shown on Applicants Exhibit A&B, will be eliminated prior to commencing operations.
- 4. Any other illegal connections between the storm and sanitary sewers will be eliminated as quickly as possible when encountered.
- 5. Representatives of the PVSC will conduct a detailed inspection of each process unit prior to the commencement of operations. The process unit may not commence operations until PVSC is satisfied that startup of the process unit will not violate PVSC Rules and Regulations as well as the terms of this permit.
- 6. The permittee will furnish to the PVSC, prior to the commencement of operations, a detailed plot plan, identifying the various processing units and all sanitary and storm piping.
- 7. The discharge of uncontaminated water (eg cooling water, etc.). will be eliminated from the sanitary sewer within nine months of the effective date of this permit. Within 90 calendar days of the effective date of this permit, the Permittee will propose a plan to PVSC to eliminate this discharge.
- 8. In addition to the requirements of General Condition No. 4 the PVSC Inspectors shall have access to all company records pertaining to quantities and types of materials processed and to the companies supplying materials.
- 9. Additionally, if the Commissioners find that the Permittee is discharging hazardous substances not covered by the permit or sections which are not within the specifications set forth by this permit and that such discharge threatens the sewer system and/or life or property, the Commissioners may order the Permittee to cease such discharge and to that end, the Commissioners may order the permittee to temporarily cease all operations until the unlawful discharge is eliminated. The Permittee agrees to the preceeding authorization of the Commissioners and further agrees to cease such unlawful discharge and operations upon order of the Commissioners, without the necessity of the Commissioners to resort to the relief of the Court. By virtue of this paragraph, the Permittee expressly agrees to

waive any right to protest the order of the Commissioners, and the Permittee expressly agrees to waive any claims for damages which the Permittee may suffer as a result of compliance with the order of the Commissioners.

Newark

Kenneth A. Gibson Mayor CC FALL.

FUSC ASG

BOX 11

Department of Engineering

920 Broad Street Newark, New Jersey 07102 201 733-8520

Alvin L. Zach, P.E.; L.S. Director

November 15, 1977

Frank Coolick,
Principal Environmental Engineer
Solid WAste Administration
Department of Environmental Protection
32 East Hanover Street
Trenton, New Jersey 08608

Re: Earthline Chemical Waste Processing and Recovery Facility, 100 Lister Avenue, Newark, Essex County

Dear Mr. Coolick:

I'd like to open this letter by thanking you for giving Newark the opportunity to comment on the proposed Earthline facility. As you are well aware, Newark and the other leading industrial cities in the State have long been in need of a local facility to process, recover, and dispose of their industries' wastes. We welcome this type of facility to Newark, and hope it will decrease the amount of promiscuous dumping and illegal discharge of hazardous wastes which have plagued our State in recent years. However, to protect the environment of Newark and the health and safety of it's residents certain environmental precautions and facility design modifications should be addressed prior to Earthline's startup.

To assure that the proposed site be "spill tight", we would like to require that storm drainage and sump water be routed to the sanitary sewer system along with the process and sanitary wastes to guarantee that all contaminated run-off and accidental spills cannot create a surface water problem.

While this is being done, monitoring stations should be built into all lines discharging to the municipal sanitary sewers. It is suggested that monitoring stations contain specially constructed chambers equipped with flow meters and monitoring devices. Please note that the volume of Earthline discharge will have little relationship to potable water use; and appreciable portion of their discharge will be waste water derived from the processing of trucked-in-waste. It should therefore also be required that waste water flow monitoring meters be installed. (Sections 21, 22 and 48(c) of Title 21 of the Revised Ordinances of the City of Newark gives Newark the right to require such meters).

Newark strongly urges Earthline to use TV sewer monitoring to plot all feeder lines, on their property, discharging into the lateral sanitary sewer. In the past questionable connections have been made, and only through a complete inspection of all lateral sanitary sewer feeder lines will the proper routing of discharge be realized.

With respect to the sanitary system, it should be required that spilled material never gain access to the sanitary line. Consequently, all floor drainage systems and other uncontrolled connections to the sanitary sewer should be equipped with valves to prevent the ingress of spilled material - the valves should be kept in the closed position and opened only to permit entry of relatively clean wash water.

Concerning the types of process waste that SCA will be discharging, I believe that our concern rests with the simple problem of protecting our lateral sewer. Consequently, our most important considerations are pH, explosivity and flammability, temperature, slug discharges, malodorous wastes and highly viscous wastes.

The problem of toxic organics and heavy metals will be the concern of the Passaic Valley Sewerage Commissioners. For their sake, I think that very specific limits on the wide variety of wastes that Earthline may discharge should be extablished. I don't think that PVSC will want Earthline to begin discharging any and everything before careful consideration is made.

Concerning the chemical storage tanks, all underground tanks should be equipped with conductivity or moisture content related monitors to detect leaks. Earthline's proposed "tight inventory control" technique is not a realistic means of monitoring slow leaks which may not be apparent over a relatively short period of time.

Provisions for the containment of all spilled materials should be required. Dikes should be constructed around all above-the-ground storage tanks especially the tanks containing refined chemical products. Also, all existing dikes should be reinforced where necessary, checked for leaks, and inspected to assure that their capacity can retain the full volume of flow contained in the respective tanks should they rupture. Ideally, the site should be arranged so that no materials can exit property without human assistance. No reactant chemicals should be stored in close proximity to each other in which, if combined, will cause a dangerous side reaction.

Pertaining to the parking of trucks and other vehicles, it should definitely be required that Earthline provide adequate parking space for all vehicles. Trucks should not be permitted to park or be stored on the adjacent streets. Deliveries of wastes to the plant should be staggered as to avoid related traffic problems.

With respect to odors, it is required that Earthline meet all local and federal standards and comply with NJAC 7:26 - 2.11.5.

Newark also strongly believes that a Security Bond be posted to assure cleanup in the event of a spill or to guarantee safe restoration of facility should Earthline vacate.

The above mentioned concerns are of paramount importance to our City. They should all be addressed by Earthline prior to the startup of operations. Thanks for your time in reviewing our comments and suggestions. Looking forward to working with your Department in the future to assure Earthline remains an environmental asset to Newark and the State, I remain

Very truly yours,

Abun L. Zach, P.E. Director of Engineering

ALZ/WJ/jf

14 Samoset Road Cranford, NJ 07016 June 9th 1983

Dr. J. Richard Goldstein, Health Commisioner New Jersey State Department of Health John Fitch Plaza Trenton, New Jersey 08625

RE: DIOXIN INVESTIGATION IN NEWARK, NJ

RECEIVED

JUN 1 : 1983

Dear Dr. Goldstein:

As a chemist/cheical engineer of 33 years experience, with 28 years in chemical production management, I have new information relative to the above referenced incident.

The attention to and investigation of the Dioxin contamination at the former Diamond Shamrock plant (80 Lister Avenue) in Newark, NJ, is most commendable.

Be advised, however, that the Montrose Chemical Company site, just two doors down the street at 120 Lister Avenue, must receive even closer scrutiny. Montrose far exceeded Diamond's production in terms of years, tonnage, and number of different toxic chemicals manufactured.

Montrose Chemical produced a wide range of herbicides and insectcides during my 28 years employment with the firm. The emphasis was on chlorination and the products manufactured included 2,4-D and 2,4,5-T (as acids, salts, and esters), DDT, BHC (benzene hexachlride), Lindane, DDVP (dichloro divinyl propane), Dibrom, chlorinated tricresyl phosphate, and many others.

The firm ceased business several years ago — the property is now occupied by another company.

There are two immediate concerns: 1/ Investigate the 120 Lister Avenue site in its own right, not as an adjunct to the Diamond matter, to determine the extent of hazard to the community. 2/ Provide medical evaluation for the former long-term Montrose Chemical Company employees.

We trust that these disclosures will receive immediate attention and anticipate an early and positive reply.

Very truly yours,

S. H. Koved Comel